

## JOINT APPRAISAL REPORT

<b>Country</b>	Georgia
<b>Reporting period</b>	<i>Previous appraisal: Internal Appraisal Report, June 2014</i> <i>Current appraisal: July 2015</i>
<b>cMYP period</b>	2011-2015
<b>Fiscal period</b>	January – December
<b>Graduation year</b>	Last year of Gavi funding – 2017

### 1. EXECUTIVE SUMMARY

#### 1.1. Gavi grant portfolio overview

Gavi began financing immunization activities in Georgia in 2001, providing support for immunization services (2002-2004 and 2006-2007), injection safety support (2002-2004), HepB (2001-2008), health system strengthening (2007-2011), Hib-containing pentavalent vaccine (2010-2015), rotavirus vaccine (2012-2015), and PCV (2014-2017). Since 2001, Georgia received a total of \$4,671,921 from Gavi in disbursements for vaccine and cash grants, including US\$582,439 in 2014 and US\$162,184 in 2015. Currently, three vaccine grants remain active (pentavalent, rotavirus and PCV, introduced respectively in 2009, March 2013, and December 2014). Georgia is planning to introduce hexavalent (DTP+HepB+Hib+IPV) vaccine in December 2015, and therefore no introduction of a separate IPV vaccine will be taking place in the country. There is currently no active HSS grant in Georgia, as the only HSS grant the country received in 2007 ended in 2011.

Georgia entered graduation in 2011, with 2017 being the last year of Gavi's support for vaccines. A graduation grant is expected to be signed in late 2015 and cover the 2016-2017 period. In 2014, the share of Gavi's financing in the country's total expenditures for immunization was 34% (as per the 2014 APR report), but it will be progressively reduced to 0% in 2018 once the country starts fully financing all of its EPI vaccines.

As per the June 2015 Gavi Board decision, Georgia can benefit from access to Gavi's catalytic support for HPV vaccine, however, during the JA discussions the country did not express an interest in introducing HPV in the coming years.

For 2016, Georgia is eligible for requesting renewal for only one vaccine grant (PCV), as the country has been informed that 2015 will be the last year of support for both rotavirus and pentavalent vaccines. Georgia is expected to fully finance rotavirus vaccine as of 2016 even though it was introduced only in 2013 due to the delay in introduction being caused by country reasons, and not supply issues.

#### 1.2. Summary of grant performance, challenges and key recommendations

##### Grant performance (programmatic and financial management of NVS grants)

Georgia's National Immunization Programme (NIP) within the National Centre for Disease Control (NCDC) remains a strong performer in the EURO region, with coverage against most of the antigens, with the exception of the recently introduced rotavirus and PCV vaccines, being above 90%, as confirmed by WHO/UNICEF coverage estimates, disease surveillance and epidemiology. The drop-out and wastage rates in 2014 were in accordance with the UNICEF and WHO-suggested targets.

In 2014, Georgia's NIP faced a number of challenges, notably with respect to declining coverage of the 3rd dose of pentavalent vaccine and difficulties in reaching established targets for rotavirus vaccination. Coverage rates for the majority of other traditional and EPI vaccines have also declined compared to 2013, even though they generally remained above 90% level. As the most recently introduced vaccines, rotavirus and PCV had the lowest coverage rates among routine antigens in 2014, but the preliminary country estimations for 2015 show that their coverage is improving and will reach 90% level by the end of 2015.

In 2014, there were a number of districts in Georgia with relatively low performance with respect to DTP3 coverage, with 15 of the country's 65 districts achieving below 90% coverage, and 4 – below 80%. Measles coverage remained relatively low with 51% of the districts (33 out of 65) reaching below 80% coverage, and an overall coverage with MCV2 of 87% in 2014, down from 89% in 2013.

*Table 1. Reported Vaccination Coverage, 2010-2014 (WHO/UNICEF estimates).*

Vaccine/coverage	2010 (%)	2011 (%)	2012 (%)	2013 (%)	2014 (%)
BCG	96	96	95	95	96
HepB (birth dose)	95	93	92	80	95
DTP1 (pentavalent 1)	99	98	94	99	99
DTP3 (pentavalent 3)	92	94	92	96	91
Polio3	88	88	93	94	91
MCV1	94	94	93	97	92
MCV2	84	77	79	89	87
Rota2	-	-	-	41	69
PCV1	-	-	-	-	10

Key reasons for declining coverage rates in Georgia are false contraindications and refusals due to increasing anti-vaccination campaigns in social media. There are also issues with accurate reporting of coverage data due to use of inconsistent calculation techniques for the number of surviving infants (estimates differ between the APR (59,931) and official NIP data (55,445)).

During both 2013 and 2014, Georgia registered a high number of measles, mumps, rubella and pertussis cases compared to other countries in the region. An especially high number of cases was observed for measles (3,188 in 2014), most of them among the 20-29 year olds and children under the age of 1 who were too young to be vaccinated. To address this issue, the NIP established an expert group to plan and implement the outbreak response activities, conducted six campaigns in 2013 and 2014 targeting 1-30 year olds and introduced incentive payments to doctors of GEL 1 per person vaccinated with MMR vaccine. Preliminary results show that these strategies had some success – as of 30 June 2015, the number of registered cases was 253, much lower than for the same period in 2013 and 2014. However, the campaigns and other implemented strategies have been ineffective among the most-at-risk groups (14-29 year olds), where less than 2% of the targeted population effectively received the vaccine.

Polio-free status has been maintained in Georgia since 2002. The current National Polio Preparedness Plan is up-to-date. Surveillance for polio/AFP is of high quality, both on epi and laboratory standpoint, but continued and past problems with coverage suggest potential for population susceptibility placing the country in the intermediate risk group for poliovirus spread following introduction. IPV introduction by switching to hexavalent vaccine (DTaP-Hib-HepB-IPV) is planned for December 2015. Transition to bOPV is planned for April 2016. Preparations are underway and so far on track.

**Table 2. Reported Vaccine-preventable Diseases (WHO)**

	2014	2013	2012	2011	2010	2000	1990
Diphtheria	0	0	0	0	0	7	
Japanese Encephalitis	0	0	-	0	0	-	-
Measles	13	10	0	0	2	15	879
Mumps	2	2	6	15	38	3,431	-
Pertussis	85	30	8	1	4	10	469
Polio	0	0	0	0	0	-	-
Rubella	0	4	1	0	0	673	-
Tetanus (neonatal)	0	0	0	0	0	0	-
Tetanus (total)	1	0	1	0	3	1	-
Yellow Fever	0	0	-	0	0	-	-

The latest introductions of new vaccines (rotavirus in March 2013 and PCV in December 2014) have been smooth. However, coverage with newly introduced vaccines are below target. The reasons for relatively low rotavirus vaccine coverage are false contraindications and ineffective call and recall system that lead to delayed vaccinations and leave infants unprotected against rotavirus due to age restrictions. In case of PCV the lower coverage is due to medical workers concerns with safety of this new vaccine and parental refusals from additional injection. 2005 and 2010 DHS<sup>1</sup> surveys, as well as the MICS<sup>2</sup> of 2006 showed no gender inequity in Georgia with respect to immunization. An Immunization Coverage Survey is currently being conducted by US CDC and will be completed in 2016. The survey will present separate estimates for three major cities of the country (Tbilisi, Kutaisi and Batumi), and provide data on immunization coverage among 2009, 2013 and 2014 birth cohorts for all antigens included in the national immunization schedule.

One of the key recent achievements of Georgia's MoH is the introduction of the innovative electronic Health Management Information System (HMIS), a comprehensive tool that captures and manages information on all aspects of healthcare in the country. It includes the *Immunization Management Module*, which gives real-time information on coverage, incorporates vaccination guidelines for service providers and allows creation of vaccination profiles, tracking vaccine administration (historical and ongoing), and registering potential complications and adverse reactions to vaccines. Immunization module is still missing analytical functions and has not yet been fully rolled out due to the lack of local capacities in the regions. Stock and warehouse management module has already been operationalized. However, the currently missing piece is analytical functions for the immunization module. The NDCD staff has been conducting trainings countrywide to integrate the immunization service delivery part to improve immunization monitoring and introduce performance-based financing.

**Financial management:** During 2014, Georgia did not receive any cash support from Gavi. No FMA has been conducted during the years of Gavi support. There have also been no financial audits of the previously disbursed funds due to their amounts being below the established thresholds. As of 1 January 2014, the balance of Gavi funds previously disbursed to the country was US\$231,971, out of which US\$124,500 were unspent funds of the 2007-2011 health systems strengthening (HSS) grant and US\$107,471 – funds remaining from earlier vaccine introduction grants. The available NVS funds were partially spent on trainings carried out by the NIP in 2014 (US\$ 21,870) and the remaining funds in the amount

<sup>1</sup> Demographic and Health Survey

<sup>2</sup> Multicomponent Indicator Cluster Survey

of US\$85,601 were brought forward to 2015. The relevant financial documentation was submitted to Gavi and copies were provided to the JA mission.

### Key findings

#### Strengths:

- High overall immunization coverage despite recent declines
- Strong political commitment to immunization on central and regional levels
- Sustained and increased government financing for the immunization program
- Strong NCDC management and supervision of the NIP; competent and experienced NIP staff
- Provision of approximately 95% of all vaccinations by the state program, share of commercial vaccines minimal
- Adequate infrastructure and equipment for immunization needs
- Functioning cold chain and significant recent government investments in cold chain upgrades
- Successful development of the electronic immunization registers
- Regular supervisions by NCDC in District Public Health Centers
- VPD surveillance well-established and functional
- Availability of modern up-to-date laboratories at Lugar Centre and WHO-accredited national laboratories for polio, measles, and rubella

#### Challenges:

- Immunization coverage for most antigens at national level lower than the regional target of 95%
- Lack of systemic approaches and incentives for maintaining and increasing immunization performance among service providers
- Continued outbreaks of infectious diseases (measles, mumps, rubella and pertussis)
- Increasing vaccine hesitancy in some areas of the country; skepticism among medical staff on vaccination and NVS, false contraindications (including temporary), poor knowledge among medical staff on vaccine risks and benefits
- Vaccine shortages and temporary stock-outs of some vaccines (pentavalent, BCG, Td) due to delays in supply and overall global supply challenges
- High drop-out rates (penta1-3, penta-MMR1), rotavirus vaccine coverage lower than penta1 and penta2
- Recently reformed NITAG is not yet fully functional
- Lack of trained/skilled professionals for health promotion (at all levels)
- Delays in implementation of EVM recommendations
- Active tracking of defaulters a challenge for health staff (cost, time, motivation); drop-out exists
- Limited laboratory confirmation of VPD cases

### Key recommended actions to achieve sustained coverage and equity

1. Maintaining immunization as a high-level political priority and securing sufficient financial resources for the NIP, notably through expanding resource mobilization efforts
2. Strengthening primary health care system and exploring performance incentives for medical service providers in order to improve quality and performance of immunization services at the primary health care centers
3. Further expanding advocacy efforts and continuing to educate medical workers on immunization benefits and safety and other key immunization-related issues, such as immunization contraindications, case detection and AEFI; incorporating immunization module into continuous education programs
4. Addressing challenges of lower coverage with routine vaccines in regions of Georgia with lower performance
5. Developing comprehensive communication strategy and allocating sufficient resources for immunization campaigns, trainings and information materials
6. Finalizing the roll-out and successful implementation of the electronic immunization register, and adding analytical functions to immunization module
7. Further improving cold chain and vaccine management, notably with respect to avoidance of stock-outs, use of pre-qualified equipment, and wider use of computerized data management systems.

### 1.3. Requests to Gavi's High Level Review Panel

#### Grant Renewals

##### ***Request for renewal of PCV in the existing presentation (PCV10):***

For 2016, Georgia requested renewal of support for PCV in its current presentation (PCV10, two-dose vial).

Georgia is not eligible for requesting renewed support for other Gavi-funded vaccines, as 2015 was the last year of Gavi funding for pentavalent and rotavirus vaccines.

### 1.4. Brief description of joint appraisal process

The Joint Appraisal was conducted from 27 July to 5 August 2015 together with the Expanded Program on Immunization Review led by UNICEF Regional office. During the mission, participants from Gavi Secretariat, WHO EURO office, UNICEF Regional Office, CDC and Sabin Institute met with representatives of the Ministry of Health, NCDC, Ministry of Finance, National Regulatory Authority (NRA), National Immunization Program, NITAG, and the WHO and UNICEF country offices. Field missions were also organized to four regions outside of Tbilisi (Imereti, Kakheti, Adjara and Abkhazia) to meet with regional health authorities, visit regional and local health centers and polyclinics, and evaluate the strengths of immunization program or a regional level. Based on the discussions during the JA and EPI Review missions and relevant background documents, the Joint Appraisal report was drafted by independent technical expert in close cooperation with GAVI SCM. The report was shared for feedback with mission members and key in-country stakeholders, and the final findings and recommendations were discussed with and endorsed by the Minister of Health and ICC members.

## 2. COUNTRY CONTEXT

### 2.1. Key contextual factors that directly affect the performance of Gavi grants.

#### 2.1.1. Leadership, Governance and programme management

**The Immunization Program of Georgia benefits from strong political commitment and support, experienced and highly qualified program leadership and staff, existing communication channels with major international organizations (Gavi, UNICEF, WHO, CDC, the World Bank) and policy- and decision-makers, and ICC with a high-level political and professional representation. NITAG was established only recently and is not yet operational.**

***Political support:*** The Government of Georgia has clearly demonstrated its support to the NIP through an almost 4-fold increase in NIP funding between 2012 and 2015 (from US\$ 1.6m to US\$ 5.8m), confirmed commitment to financing all routine vaccines (including the new hexavalent vaccine), significant investments in cold chain upgrades in recent years, and systematic fulfilment of country's co-financing requirements. The Government advocates for NIP needs among the key decision-makers (e.g. securing support of the Parliamentary Committee of Health Care for introduction of hexavalent vaccine). The Government also intends to further strengthen immunization program through involving various state and non-state institutions such as the Civil Registry Agency, the Ministry of Education and Science, and the private medical sector into actively collaborating with the NIP. The law of Georgia on Health Care defines disease prevention and maternal and child health as Government priorities.

***Strong leadership and national level program management:*** Georgia has a well-developed NIP, with competent and experienced staff. The NIP functions under the supervision of the NCDC who is responsible for development of national standards and guidelines, monitoring of immunization activities, providing technical assistance, training of service providers and maintaining national level vaccine stock. Until now, NIP has preserved its financial sustainability and successfully advocated for the inclusion of funds for implementation of the national immunization plan into the state budget for coming years through extensive advocacy work with health and social assistance committee of the Georgian Parliament. The program also demonstrated its effectiveness in addressing challenges faced by the country during the measles outbreak and was instrumental in securing government financial support (1 million GEL) for implementation of the outbreak response activities.

***Immunization program objectives:*** The current National Plan of Action for Immunization covers the period 2012-2016 and has the following objectives and priorities:

1. Improving the timely immunization coverage against all antigens up to 95% at the national levels and at least to 80% at all district levels throughout the country
2. Sustaining polio-free status and continuing supplementary disease control activities for measles/CRS and diphtheria
3. Decreasing vaccine wastage rates
4. Introducing new vaccines based on epidemiological and cost-benefit analysis
5. Improving immunization coverage and program management capacities in conflict-affected zones

***ICC:*** Georgia has a functioning and operational ICC, created in 2000 to optimize support and coordination of the work of all agencies involved in the National Immunization Program. The ICC is chaired by the Minister of Health, Labor and Social Affairs of Georgia and includes representatives from the MoH, NCDC, WHO, UNICEF and Rostropovich-Vishnevskaya Foundation. ICC holds regular meetings (11 meetings in 2013 and 4 in 2014) dedicated to endorsement of NIP's Annual Progress Reports, discussion on quality of statistical data (e.g. numbers of surviving infants and birth rates) as well as other aspects of immunization program and its implementation. ICC is also in charge of coordination of work of all agencies involved in implementation of the National Immunization Program.

***Legislation Framework:*** Georgia has a well-developed legal basis for effective implementation of the National Immunization Program, with a series of laws and decrees governing immunization-related legislation, including the laws on public health and health care. The Government is responsible for providing immunization to all citizens free of charge in line with the national immunization calendar. The Tax Law exempts medicines, including vaccines, from VAT taxes. The legislation does not clearly declare whether vaccination is compulsory or voluntary, facilitating exemptions, notably due to

lack of enforcement over persons refusing immunization. No enforceability mechanisms, such as school entry restrictions, apply to non-vaccinated children. The Law of Georgia on Drugs and Pharmaceutical activities defines the criteria and conditions for admission/recognition and quality control of pharmaceutical products including vaccines. Recent substantial revisions were made in 2009 and parallel import and regime of expedite recognition were added to the national registration regime of medicines (including vaccines). Waiver mechanism is used for WHO-prequalified vaccines.

**Partnership Framework Agreement (PFA)** between Georgia and Gavi has not yet been signed. The draft PFA together with the Graduation Action Plan have been reviewed and agreed upon by the Health Care and Legal Departments of the MoLHSA and the signature of the PFA is expected before the end of 2015. The signature of the PFA will allow the Graduation Grants with UNICEF and WHO to be signed and funding to be disbursed.

**National Regulation Agency (NRA)** system and required minimum regulatory functions are in place (market authorization, registration, post-marketing surveillance, AEFI surveillance). The NRA self-assessment was carried out in October 2013, and an external NRA assessment followed in October 2014. Based on its findings, NRA requires strengthening in multiple areas, notably post-marketing surveillance and marketing authorization. Expedited procedures for registration of prequalified vaccines were not in place. Institutional Development Plan was elaborated, but no activities have so far been implemented, as they are budgeted under the Georgia Graduation Grant that has not yet been finalized (signature expected before the end of 2015). The NRA needs to address a number of challenges, including overall capacity strengthening, implementation of expedited procedures for registration of prequalified vaccines and strengthening of AEFI system.

**NITAG** was established in Georgia in 2014. Previously the ICC made recommendations to the MoH on immunization policy and practice. The roles and responsibilities of ICC and NITAG need to be further discussed and clarified. Achieving a clear understanding of the role and added value of NITAG will be important in the coming future to ensure independent and evidence-based advice to policy and decision makers.

### 2.1.2. Costing and financing

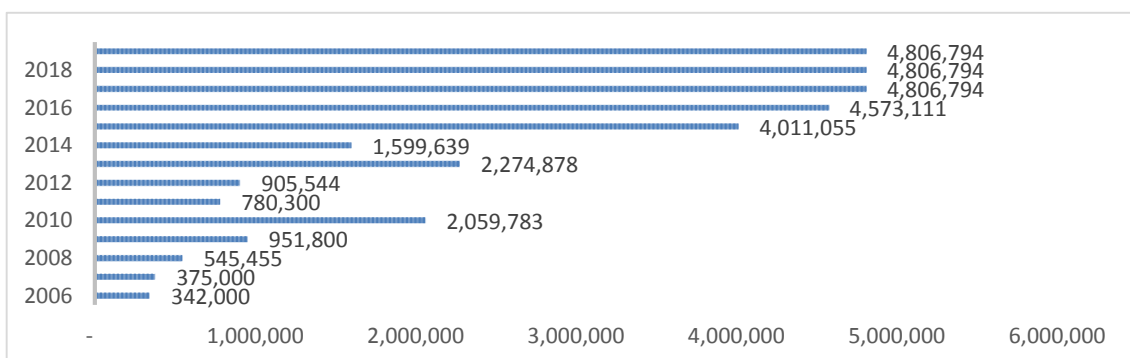
**Georgia has consistently met its co-financing requirements on time including in 2015. Despite economic challenges common to the region, the government maintained stable financing of the routine immunization and committed to its further increase in 2017-2019. In 2015, the Government of Georgia approved 10,390 million GEL for procurement of all vaccines, including Hexavalent, and immunoglobulin<sup>3</sup>.**

**Co-financing:** Georgia has consistently fulfilled its co-financing requirements on time since the start of co-financing arrangements in 2009. The country was briefly considered in default in 2010 due to a miscommunication on the modality of procurement of co-financed doses. This issue has been cleared and the country is considered a good performer. Georgia's co-financing requirements for 2015 have already been fulfilled.

**Health care reforms:** In 2012, Georgia initiated a new wave of health care reforms. The new Government declared health and social sectors as main priorities and introduced Universal Health Care in February 2013 to increase access to health care services. The strategic document Georgia 2020 sets the goal of reducing out-of-pocket health expenses in from 70% in 2012 to 30% by 2020. In 2014, the ministry doubled the health care budget compared to 2012 and became the main purchaser of health care services.

**Government funding:** The NIP is financed primarily by the central and local governments. Funds for implementation of the national immunization program are directly channelled from the Government of Georgia to NCDC, and so far no issues have been noted in timely transfer of funds to the NCDC account. National budget has a dedicated line item for vaccines, and funding for vaccines has been growing (from 4 M GEL in 2012 to 5.7 M GEL in 2014 and planning to increase to 8.2 M GEL in 2015 and 11.4 M GEL in 2016). Similar increases have been noted in administrative budget of the NCDC (from 3.6 M GEL in 2012 to 7.2 M GEL in 2014).

Figure 1. Routine Immunization budget dynamic (USD)



Budget decrease in 2014 shown above is due to the fact that part of vaccines needed in 2014 were purchased in 2013.

<sup>3</sup> Cost of immunoglobulin accounts for one third of the amount allocated by GoG.

Over the period 2006-2014, Georgia's Gross National Income increased from US\$1,680 to US\$3,720 per capita, a 121% increase. According to the WHO/UNICEF Joint Reporting Form (JRF), the Georgian government spent \$13 on routine immunization per surviving infant in 2006. By 2014, this figure had risen to \$68, reflecting a 523% increase.

**Table 3. Public allocations for immunization program (USD)**

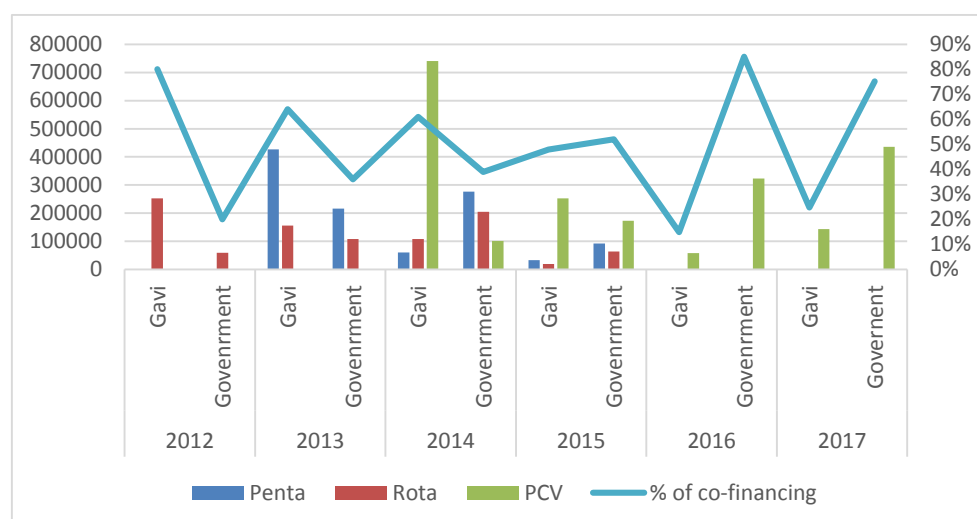
	2012	2013	2014	2015	2016	2017	2018
<b>Total Health Expenditure</b>	200,602,410	216,592,151	291,956,306	325,558,313	320,659,556	364,457,778	373,346,667
<b>Government Expenditure or Routine vaccines</b>	1,574,943	3,691,853	2,509,139	5,841,611	6,256,667	6,398,815	6,398,815
<b>Gov. Exp. on routine vaccines, as % of health care expenditure</b>	0.4%	1.05%	0.55%	1.23%	1.43%	1.32%	1.28%
<b>Government expenditure as a share of Total Expenditure on Routine Immunization (%)</b>	38%	49%	77%	94%	98%	97%	100%

Sources: JRF 2014, State Program 2015, Public Budget MTEF – 2015-2019, Gavi Decision Letters

### **Donor funding:**

In addition to government funding, Georgia's health care sector receives funds from international donor organizations such as WB and USAID. The NIP is supported by international implementing partners such as Gavi, UNICEF and WHO. Even though government support to the NIP is growing, some areas of immunization, such as VPD surveillance, remain heavily dependent on donor support.

**Table 4. Gavi Share and Government co-financing for New Vaccines (GEL)**



**cMYP:** The current cMYP of Georgia covers 2012-2016. The next multi-year plan will cover period 2017-2021 and will be prepared during the Q3-Q4 of 2016 upon availability of the full baseline data for 2015.

**Procurement mechanism:** Vaccine procurement in Georgia is centralized and is managed by the finance and procurement departments of NCDC. Georgia widely uses the opportunity of purchasing vaccines through pooled mechanism and procures all routine vaccines through UNICEF Supply Division, except for hexavalent (which is not available through UNICEF). Vaccine funds are secured through use of a separate budget line. Adequate forecasting of vaccine needs is in place.

Hexavalent vaccine is procured through international tender. Non-routine vaccines (e.g. anti-rabies) are self-procured through electronic tenders, based on the Law of Georgia on State Procurement. In general, the law allows purchaser to enter in multi-year contracts, but does not recognize pooled procurement mechanisms unless they are regulated by a higher level legal act (e.g. international agreement between Georgia and UN in case of UNICEF SD). The State Procurement Law allows exemptions for urgent cases and strategically important needs, if purchaser provides sufficient justification. Advance payment is also permitted and purchaser usually sets certain guarantee mechanisms to provider.

### **2.1.3. Other system components**

**HR Management:** For the purposes of the National Immunization Program, the NCDC has strong, experienced and dedicated staff with 7 professionals in the immunization division, 5 in cold chain and vaccine delivery, and 5 in VDP surveillance division. The NIP is led by a highly professional and experienced director working under the supervision of NCDC management. Advisory bodies of the NIP are established and mostly functional. Urban polyclinics have dedicated



health staff. The NIP conducts regular trainings on various technical areas. However, the NIP lacks systemic approach and incentives for increasing/maintaining immunization performance among service providers and faces problems in terms of optimization of utilization of human resources at public health centers and primary health care levels. Quality of infrastructure and working conditions is low in most of public health centers and some of primary health care facilities. Personnel is being regularly trained.

**Cold Chain and logistics:** The national vaccine store is of a high quality standard. Facilities at the national level (office, cold rooms, stores) are in good condition and well managed. The staff have good skills, are experienced and dedicated. Vaccine storage capacity is sufficient, including for the introduction of new vaccines planned (notably hexavalent in December 2015). Recently procured equipment for the central and district levels came from the Government budget and covered 1/3 of country needs (excluding primary health care facilities needs).

At the country level (DPHC, primary health care centres), vaccine stores and distribution system are well structured and fairly well functioning. One issue is the use of domestic refrigerators in facilities where no air conditioner is available (during the review the outside temperature reached 40° C). As all primary health care facilities are private, it is difficult for NCDC to convince them to procure standard equipment for vaccine storage. The cold chain equipment that NCDC procured in line with WHO standards could not be handed out to primary health care facilities due to their private status.

The latest EVM assessment took place in September 2014. A cold chain inventory assessment was conducted in 2013. Several of the EVM assessment recommendations have been implemented, but many are still outstanding.

**Immunization service delivery:** Immunization services are provided through the Primary Health Care (PHC) network institutions, with the majority of services being fixed (very little mobile outreach is performed). Access to immunization services is guaranteed under minimum basic package of health services. Primary health care facilities have been privatized in Georgia and contracted for provision of immunization services by the Social Service Agency (SSA). As a result, their supervision by NCDC remains limited, with NCDC playing mainly an advisory role with recommendations on potential improvements, but no real leverage over enforcing changes when undesirable practices and behaviours occur. This limits the impact of the NCDC on immunization results, especially with respect to primary health care facilities that do not treat immunization as a priority (e.g. large polyclinic with inpatient department).

Access to immunization services is not an issue in Georgia, especially in major cities, where vaccinations are provided at high frequency. In rural areas, due to low number of children per facility, health centres are providing immunization services on designated dates (in some areas - once a month). School physician system (common during the Soviet times) is being re-introduced and will be instrumental in school catch-up of children not vaccinated in their earlier years of life. Even though the national immunization schedule is closely followed throughout the country, increasing postponement of vaccine administration has been noted due to medical workers concerns about safety of vaccines and false contraindications and increasing vaccine hesitancy (notably with respect to additional injections) among parents and medical staff.

**Data collection and monitoring:** The NCDC medical statistics department collects data from health care service providers. Data collection and reporting is in general satisfactory, data analysis is performed at national and district levels (including outbreak analysis). The overall immunization coverage recording and reporting system appears to be well functioning, and data is generally complete and processed timely. However, there have been issues with quality of data for surviving infants (immunisation information system reports ~4,000 fewer children compared to medical statistics reports) due to delays in registration and missing data on new-borns at primary care facilities. In 2014 Georgia developed and introduced a new electronic e-Health system that includes immunization service and vaccine stock management modules. The system aims at improving data quality used by the immunization program and is currently maintained in parallel with existing reporting systems. However, lack of analytical functions and data visualization of the module prevent the NIP from maximizing the benefit that could be derived from this system. Absence of computer-skilled staff at service delivery level is a major obstacle for rolling out the e-system throughout the country.

**Surveillance and reporting:** All vaccine-preventable diseases (VPD) are reported nationally; all are case-based and subject to immediate notification (hepatitis B is an exception - aggregate reporting since 2012, but there is a plan to change it back in 2015). National Guidelines for Communicable Disease Surveillance which include VPD surveillance were adopted in 2004 and updated in 2010. The surveillance process includes case-reporting by primary health care facilities (HCF) to District Public Health Centers (DPHC) and then to NCDC. HCFs report cases to DPHCs using paper forms and DPHCs enter information into the Electronic Infectious Disease Surveillance System (EIDSS) - a nationwide web-based system for human and animal communicable disease surveillance (reporting through EIDSS mandatory in 2012). The national level receives real time reports on cases through EIDSS. Timeliness and completeness of reporting from district to national level is good, with the introduction of EIDSS being a major contributing factor. Laboratory confirmation is a challenge due to limited sample collection because of logistical challenges, especially for non-hospitalized cases, underestimation of needs and lack of awareness on availability of testing by providers and parental refusal for blood collection. This particularly affects surveillance for measles and rubella.

Measles and rubella surveillance is in general well-functioning and despite the huge case load, both epidemiology and laboratory components managed well during the large-scale measles outbreak of 2013-2014. Polio surveillance also functions well with AFP and environmental surveillance in place and plans for establishing enterovirus surveillance from human cases in 2016. There is a sentinel surveillance for rotavirus and invasive bacterial diseases, supported by WHO, with cases reported to EIDSS. In April 2014, a cluster of four fatal cases of pneumococcal infection among adults was identified using both bacteriology and molecular methods. Rotavirus and IBD sentinel surveillance data are reviewed at the ICC meetings and sent to the WHO on the monthly basis. Sentinel surveillance data was used for making decisions on rotavirus and PCV introduction.

The NCDC immunization team regularly conducts supportive supervision visits to the DPHCs, including some primary health care facilities in each district. Programmatic changes in the immunization program (e.g. introduction of new vaccines) offer opportunities to conduct additional supportive supervision visits. However, as mentioned earlier, NCDC supervision of the primary health care centers lacks enforceability of challenges and deficiencies identifies, and NCDC role remains limited to advisory support.

**E-health:** The MoH made significant achievements in introducing innovative electronic **Health Management Information System** (HMIS) - a comprehensive tool that captures and manages information on all aspects of healthcare in Georgia, integrated with civil and birth registry, unique ID number, and 30 modules. It connects key players in the healthcare sector, such as MoH, insurance and pharmaceutical industries, health service delivery sector, the population and various governmental entities. The HMIS System enables the MOH and its affiliated agencies to make informed decisions in all critical domains, establish standards for reporting and real-time information exchange, ensure high-level of security and confidentiality of sensitive and patient proprietary information. One of the modules is the Immunization Management Module, which allows creation of vaccination profiles and tracking historical and ongoing vaccinations administered to beneficiaries. It also registers complications and adverse reactions to vaccinations, incorporates vaccination guidelines for service providers, and gives real-time information on coverage. The system is built around the citizen's national ID number that enables patients to receive vaccination services at any facility countrywide, as the service provider has instant access to the vaccination history of the beneficiary using the patient's national ID, which enables monitoring of migration of beneficiaries. The system allows to connect with the stock and warehouse management sub-module to ensure vaccine stock monitoring and supports inquiries and dispatches of vaccines from central and regional warehouses all the way to health facilities and ultimately to the patient.

Immunization module is still in the process of implementation across the whole territory due to the lack of local capacities in the regions in application of the module. The NCDC staff has been conducting trainings countrywide to integrate the immunization service delivery part.

**Immunization quality and safety:** Vaccine storage and distribution are well-organized and structured. Cold chain systems are reliable. Relevant SOPs have been developed. Waste management meets national requirements. The AEFI system is in place with existing forms, procedures for detection, reporting, investigating and classification. AEFI guidelines are currently being reviewed. No AEFI cases have been reported since 2008, when adverse events in school at the time of the measles-rubella campaign were registered, leading to a media crisis. Temperature control and monitoring at storage facilities corresponds to norms, but an assessment of these aspects during transportation of vaccines needs to be reviewed. However, as mentioned above, domestic-type refrigerators are being used for vaccine storage in private primary healthcare facilities, even though it is not seen as a risk to the quality and safety of vaccines in the Georgian context.

**Communication:** There is a strong awareness at the MoH and NCDC level of importance of communications and advocacy through a planned approach. Building communication capacity and development of a comprehensive advance communication strategy are among the most pressing NIP priorities. Currently, the NIP does not have a crisis communication plan in place to manage AEFIs, even though this appears to be an important need considering the impact that the media caused following the adverse events after in-school measles-rubella campaign in 2008. In the past 2-3 years, health staff started to provide more detailed information on the expected side effects and potential adverse events following immunization, which increased transparency and helped manage parents' expectations. There is a strong involvement of health staff in follow-up with parents on immunization timelines (phone/sms reminders of the need to bring children for vaccination, efforts to explain to parents the value and safety of immunization). Although the health promotion team at the national level had its capacity increased in the recent years (human and financial resources), it was noted that communication strategies and actions/materials at the field level could be further improved to reach a required level for a strong immunization program.

### 3. GRANT PERFORMANCE, CHALLENGES AND RENEWAL REQUESTS

#### 3.1. New and underused vaccine support

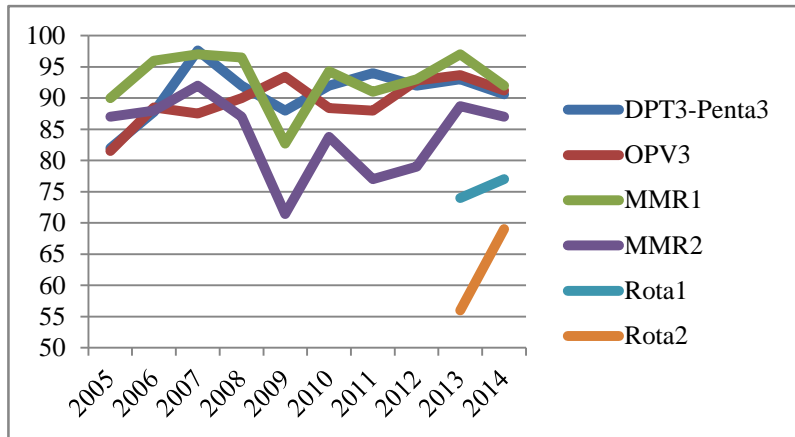
##### 3.1.1. Grant performance and challenges

Despite recent challenges linked to declining coverage, Georgia's NIP remains a strong program in the EURO region. According to JRF estimates, the majority of vaccines administered in Georgia had above 90% coverage in 2014, with the exception of last dose of rotavirus vaccine (69%) and MMR 2<sup>nd</sup> dose (86.6%).



PCV 2014 coverage could not be established due to the timelines of its introduction (December 2014). Overall, immunization coverage is below the regional target of 95%, and drop-out rates are relatively high (notably for penta1-3, penta-MMR1). Rotavirus vaccine coverage is lower than penta 1 and 2. For DTP1, JRF-reported coverage was 100.7%, which raises questions over the quality of denominator data. The country's own estimations of coverage are slightly different from those presented by WHO/ UNICEF due to differences in denominator used.

Figure 2. Georgia Immunization coverage



Some difficulties have been observed in supervision of health facilities. Routine supervision by NCDC is not yet in place due to budgetary constraints. Monitoring of program performance by District Public Health Centers and within primary health facilities remains insufficient with limited data analysis. No calculation of immunization coverage is being done at the primary health facility level.

In 2014, Gavi provided support to Georgia for three vaccines – pentavalent, rotavirus and PCV.

**Pentavalent vaccine (DTP-HepB-Hib)**

2015 is the last year of Gavi's support for the Hib-containing pentavalent vaccine (DTP-HepB-Hib). This vaccine was introduced in late 2009. Due to global supply constraints, the manufacturer of pentavalent vaccine provided to Georgia has changed in 2015, causing a brief stock-out of this vaccine throughout the country in June – July 2015. In view of the introduction of IPV in the national immunization schedule, Georgia took a decision to switch from pentavalent to hexavalent vaccine ((DTP+HepB+Hib+IPV). The introduction is scheduled for December 2015. Additional shipments of pentavalent vaccines are expected to ensure that the vaccine stocks are sufficient to last until the planned switch.

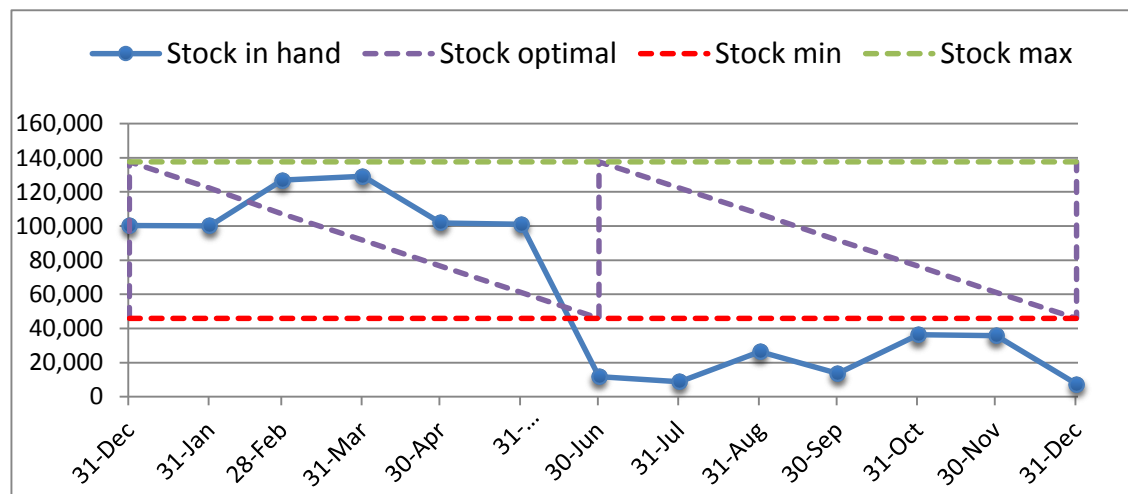


Figure 3. Pentavalent Vaccine stock levels, 2014

The national coverage rate for pentavalent vaccine in 2014 was 91% which was slightly below the set target. As mentioned above, a high drop-out rate between the 1<sup>st</sup> and 3<sup>rd</sup> dose of penta1-3 has been observed (up to 10%).

**Pneumococcal Vaccine:** PCV10 vaccine was originally scheduled to be introduced in 2013, but the introduction was postponed for one year due to delay of rotavirus introduction and decision of the NIP to keep at least one year period between introductions of two vaccines. The vaccine was introduced in December 2014, with a post-introduction evaluation scheduled for the end of 2015. According to the preliminary findings of the EPI Review and the Joint Appraisal, PCV implementation is proceeding fairly well throughout the country. Although some family practitioners and nurses were initially concerned about the quality and safety of the new vaccine and parents' reaction to two injections in the same visit, these concerns have dissipated due to lack of side effects and adverse reactions following immunization.

PCV vaccine in its existing presentation is the only vaccine for which Gavi support is being renewed in 2016. The country was consulted about a potential interest in switching to PCV13 presentation, but chose to maintain the current vaccine form, until at least full graduation from Gavi support.

**Rotavirus vaccine:** Rotavirus gastroenteritis has been a significant public health problem in Georgia in late 1990s and early 2000s. According to the WHO estimates, in 2006 more than 100 young children died due to rotavirus diarrhea. According to sentinel surveillance data, significant proportion of severe diarrheas (40-47%) in children less than 5 years of age that required hospitalization has been associated with rotavirus infection.

Introduction of the rotavirus vaccine has thus been a priority for the MoHLSA and NCDC of Georgia. It was originally planned for 2012, but was delayed until March 2013 due to the organizational and structural changes of the health care sector in general and NCDC in particular following the Parliamentary elections of 2011 and change of the political leadership of the country. Because the delay in introduction was due to in-country processes and not supply issues, the timelines of Georgia's graduation from Gavi support for rotavirus vaccine could not be extended or modified, and the country will start fully financing the procurement of rotavirus vaccine as of 2016.

Rotavirus vaccine introduction in March 2013 was successful throughout the country, including Abkhazia region. Post-introduction evaluation was conducted in 2014. At the time of introduction, a communication event was organized covering the event, with information on the new vaccine being broadcast on radio and TV. The overall rotavirus vaccine coverage for children born in 2013 was below the 60% target (48% for the 1<sup>st</sup> dose and 37% for 2<sup>nd</sup> dose), using the denominator of 58,579 births. The denominator being used by health facilities is considerably lower than the number of live births, which suggests that some infants are not being registered and vaccinated in health facilities.

In 2014 the coverage rate for rotavirus vaccine was 69%<sup>4</sup> which was below the 93% target.<sup>5</sup> The reasons for relatively low rotavirus vaccine coverage are false contraindications and ineffective call and recall system that lead to delayed vaccinations and leave infants unprotected against rotavirus due to age restrictions.

The reported wastage rate for rotavirus vaccine was within the recommended norms (5%). Since the introduction of the rotavirus vaccine, no AEFI cases have been associated with the rotavirus vaccine.

**Vaccine hesitancy and refusals:** There are concerns about safety of vaccines among medical workers which lead to false contraindications, including temporary ones causing reduced rotavirus vaccine coverage and drop-outs. There is also increasing proportion of parents that refuse to vaccinate their children due to concerns about safety of vaccines and lack of knowledge about benefits of immunization. Active follow-up of children is still a challenge for health staff due to insufficient financial incentives and lack of motivation in urban areas. In addition, the staff of larger health facilities with inpatient departments are less interested in implementing immunization due to lack of financial interest. Finally, the lack of trained/skilled professionals for health promotion at all levels contributes to weak promotion of the immunization among the target population groups.

### 3.1.2. NVS renewal request / Future plans and priorities

For 2016, Georgia is eligible for requesting renewed support for only one vaccine – PCV. The country wishes to preserve the existing presentation (PCV10, two-dose vial). Estimated needs for PCV requested from Gavi and covered by the country in 2016 and 2017 are provided below:

*Table 6: Estimated GAVI support and country co-financing (GAVI support)*

		2014	2015	2016	2017
Number of vaccine doses	#	137,500	31,600	70,000	42,000
Number of AD syringes	#	139,200	34,400	68,600	45,700
Number of re-constitution syringes	#	0	0	0	0
Number of safety boxes	#	1,575	400	775	475
Total value to be co-financed by GAVI	\$	488,500	112,000	455,500	146,000

*Table 7: Estimated GAVI support and country co-financing (Country support)*

		2014	2015	2016	2017
Number of vaccine doses	#	28,500	49,200	90,000	126,900
Number of AD syringes	#	28,900	53,300	88,200	138,100
Number of re-constitution syringes	#	0	0	0	0
Number of safety boxes	#	375	475	975	1,400
Total value to be co-financed by the Country	\$	112,500	152,500	318,500	441,000

The country has scheduled to introduce hexavalent vaccine in December 2015.

**HPV Vaccine:** As per the June 2015 Gavi Board decision, Georgia can benefit from access to Gavi's catalytic support for HPV vaccine. However, during the EPI Review and JA discussions, the country showed limited interest in introducing HPV in the coming years due to previous unsuccessful experience with this vaccine. In 2010, Tbilisi Mayor's office in

<sup>4</sup> Source – WUENIC 2014

<sup>5</sup> Source – APR 2014

collaboration with private donors from the US (residents of the USA of Georgian origin) initiated HPV test introduction in Tbilisi. The funds for vaccine procurement were provided by donors and the procurement was carried out by the local (Georgian) pharmaceutical importer company. According to the information provided by the Tbilisi Municipal Health Department, coverage rate of HPV was far below target and reached only 13%, which was attributed to poor planning of introduction and lack of pre-introduction trainings and sufficient communication campaign. The introduction process was not properly recorded and no valid information on introduction is available. Although NCDC was not involved in the introduction process, the staff of NIP has been carefully observing the introduction process and analysed introduction results. The analysis of this experience suggests significant concerns with respect to cost-effectiveness of the introduction and extremely low interest of Georgia's population in HPV vaccination. The situation is different in Abkhazia region, where the medical community expressed significant concerns with the rates of cervical cancer (approximately 1% among the screened women), and where an interest in introduction of HPV vaccine is strong, at least among health staff.

### 3.2. Graduation plan implementation

The first Graduation Assessment in Georgia was carried out in July 2012, followed by the graduation re-assessment in October 2014 to gather and analyse specific information concerning the prospects for Georgia after graduation from Gavi support and to provide recommendations to sustain immunization program achievements following graduation.

The 2014 re-assessment findings showed improvements in many areas. The Government doubled health budget and introduced universal health coverage for every citizen. Access to immunization services is guaranteed under the minimum basic package. The service provision was restructured (polyclinics in urban and PHC providers in rural settings). The government introduced school physician system and expended contents of benefit package. The Ministry of Health became the main purchaser of health services for the population. The health management information system (e-health) was successfully developed and implementation started. The new system was integrated with civil and birth registry and each beneficiary of the system assigned an ID number.

The country sustained high vaccination coverage at national level and successfully expanded immunization program up to 12 antigens by maximizing benefits of available Gavi support. National Immunization Program was re-established at the national level. The National Immunization Technical Advisory Group (NITAG) was established to provide evidence-based recommendations to the immunization program. The government utilized UNICEF SD procurement services for all routine immunization vaccines to assure supply of high quality vaccines at optimum prices. Finally, the budgeting process was well structured and evidence-based (built upon technical input from NCDC/MOH and benefitting from collaboration between involved structures). Needs were well communicated and forecasted across different stakeholders in the budgetary process and four-year rolling budget.

The Graduation Action Plan developed during the 2014 Graduation re-assessment has been validated and endorsed by the ICC in September 2015. Funds for implementation of Graduation activities will be channelled through WHO and UNICEF. Relevant Grant Agreements are currently being prepared for signature. Implementation of activities is expected to start in 2016 and cover the 2016-2017 period.

### 3.3. Financial management of all cash grants

All international grant projects are subject of Government approval in Georgia. After an explicit authorization is granted by the Cabinet of Ministers, donor funds go to federal treasury and are allocated to a specific Ministry department, after which they can be used for implementation of agreed projects.

During 2014, Georgia has not received any cash support from Gavi (PCV introduction grant was disbursed in 2013). No FMA has been conducted in Georgia during the years of Gavi support. There were also no audits of previously disbursed cash grants due to their amounts being below the established threshold.

2014 financial statements have been submitted with the 2014 APR as per Gavi requirements. NVS and HSS funds are held in separate MoH bank accounts. Cash balance remaining from the HSS grant (which ended in 2011) amounts to US\$124,500. These funds are held at the National Treasury account and are earmarked specifically for the NIP. They have been approved for use in the context of the Graduation Action Plan and will be made available to the NIP once the Graduation Grants have been signed.

For the NVS grants, out of the US\$107,471 available as of 1 January 2014 as cash balance from previously disbursed vaccine introduction grants, the NIP spent US\$85,601 in 2014 – primarily on health staff trainings in the context of PCV introduction. Remaining cash balance as of 1 January 2015 was US\$ 21,870. The NCDC plans to apply these funds for procurement of a second refrigerated truck. The remaining NVS funds are incorporated into the national health sector plans and budgets, and their proposed expenditure is reviewed and approved by ICC.

### 3.4. Recommended actions

Following the technical meetings and discussions that took place during the EPI review and Joint Appraisal mission, a number of recommendations were raised and discussed by the mission participants with in-country stakeholders,

including the top management of the NCDC, Deputy Minister of Health and other local stakeholders. These observations and recommendations focused on the key priority activities and suggested actions for addressing the challenges identified during the visit, notably with respect to enhanced potential for financial and programmatic sustainability of national immunization programme and solutions for decreasing vaccine coverage.

**Annexes D and F provides a summary of these recommended actions and corresponding technical assistance proposal,** together with the indication of the responsible implementers, estimated timelines and potential sources of funding.

In summary, the key recommended actions for Georgia for the next year, are reflected below:

1. Maintain immunization as a high-level political priority and secure sufficient financial resources for the NIP, notably through expanding resource mobilization efforts
2. Strengthen primary health care system and explore performance incentives for medical service providers in order to improve quality and performance of immunization services at the primary health care centers
3. Further expand advocacy efforts and continue to educate medical workers on immunization benefits and safety and other key immunization-related issues, such as immunization contraindications, case detection and AEFI; incorporate immunization module into continuous education programs
4. Address challenges of lower coverage with routine vaccines in regions of Georgia with lower performance
5. Develop comprehensive communication strategy and allocating sufficient resources for immunization campaigns, trainings and information materials
6. Finalize the roll-out and successful implementation of the electronic immunization register
7. Further improve cold chain and vaccine management, notably with respect to avoidance of stock-outs, use of pre-qualified equipment, and wider use of computerized data management systems.

For a more detailed summary of the recommended actions, please see Annex D.

#### 4. TECHNICAL ASSISTANCE

##### 4.1 Current areas of activities and agency responsibilities

In 2014 and 2015, Georgia's Immunization Program received the following technical assistance from the Gavi Alliance partners:

##### WHO:

- Training on immunization financing and external advocacy support to strengthen financial sustainability
- Graduation assessment and development of an action plan to address identified challenges
- NRA assessment and development of institutional development plan
- Workshop on cMYP development
- Advocacy workshop on expedited review for registration of prequalified vaccines
- Support with introduction of PCV
- Rotavirus vaccine post-introduction evaluation
- Support with establishment of NITAG
- Participation in WHO Regional meeting on NUVI
- Participation in WHO Regional Meeting on making decision on seasonal influenza immunization
- Participation in WHO Regional Meeting for Immunization Programme Managers

##### Sabin Vaccine Institute:

- Support for advocacy effort to achieve sustainable financing: documenting immunization budget planning and execution processes and assessing sources of immunization financing; mapping stakeholders and developing stakeholder-specific messages related to immunization financing (2015)
- Strengthening immunization legislation: reviewing literature on immunization-related laws and regulations; developing minimum set of legislation provisions (in collaboration with WHO); reviewing immunization-related legislation in Moldova (2015)
- Establishing relations with national counterparts in Parliament, MoH and MoF (2015)

Technical assistance was also provided by UNICEF and CDC.

##### 4.2 Future needs

**The key future needs and priorities for Georgia, as reported by the country in the 2014 APR and re-confirmed during the Joint Appraisal, are:**

1. Sustain polio-free status
2. Eliminate measles and rubella;
3. Improve the timely immunization coverage against all antigens to 95% or above at the national level

4. Make evidence-based decisions on introduction of new vaccines
5. Achieve financial sustainability of national immunization programme.

For the majority of these priority activities, technical assistance has already been secured through the Graduation Action Plan developed in 2014 and expected to be signed in late 2015. Some of the activities required to address these priorities, however, have not been covered in the Graduation Action Plan and will require additional technical assistance to be secured through the Joint Appraisal channel. This particularly applies to challenges with coverage and sustainability of the immunization program in the Abkhazia region.

The key activities that have been recommended to address identified priorities are the following:

#### Short-term 2015-2016

- Support continuous advocacy to ensure sufficient resources for NIP; build advocacy capacity for immunization financing;
- Strengthen collaboration with UNICEF SD to expedite transactions, foresee and avoid shortages and facilitate discussions with manufacturers to avoid delays;
- Develop and implement effective strategies to address under-vaccination with measles/rubella and other routine vaccines, especially among high-risk groups;
- Develop comprehensive communication strategies and increase communication capacity in NCDC and DPHCs;
- Conduct a comprehensive review of existing and emerging legislation and its implications for the immunization program (based on the current revision of public health law and ongoing health reform);
- Strengthen and operationalize the NITAG;
- Conduct trainings for medical workers in sub-regions on vaccine safety and contraindications;
- Implement the NRA Institutional Development Plan prepared in 2014;
- Conduct PCV Post-Introduction Evaluation.

#### Medium term (2016-2017)

- Collect evidence for decision-making on HPV vaccination;
- Continue capacity strengthening of the NITAG;
- Complete the upgrade and replacement of outdated and non-functional cold chain equipment;
- Increase capacity of the national procurement agency to deal with vaccine products and vaccine markets and prepare efficient and sustainable procurement of new vaccines after GAVI support;
- Ensure stability and predictability of domestic financing;
- Build capacity for resource mobilization and develop action plan;
- Strengthen national regulatory capacities (on regulatory framework, market authorization and pharmacovigilance);
- Increase access to immunization services by improving availability and quality of services (particularly in low performing districts);
- Engage national counterparts in peer-to-peer, inter-institutional work to review and update existing immunization-related legislation (based on the assessment findings);
- Increase demand for immunization services by assessing and changing behaviour of immunization providers and parents (including public).

Based on above (medium-to-long term) priorities and key recommendations, the technical assistance areas and activities listed below have been proposed. Detailed list of activities for the next year – 2016 – that require technical assistance, together with intended outcome/s, indication of the implementing agency (potential provider), modality and potential sources of funding, is provided in Annex E.

<b>Immunization financing &amp; resource mobilization</b>	<ul style="list-style-type: none"> <li>• Develop resource mobilization plan and advocacy materials for resource mobilization (WHO TA)</li> <li>• Conduct trainings in resource mobilization for relevant staff (WHO TA)</li> <li>• Develop parliamentary network and engage parliamentarians in immunization advocacy, budget oversight and development immunization-related legislation as needed (Sabin)</li> <li>• Engagement of national institutional counterparts (Parliament, MoH and MoF) with local NGOs and think tanks in joint advocacy activities for immunization financing (Sabin)</li> <li>• Conduct peer exchanges and regional workshop on immunization-related legislation to facilitate the collaboration between national counterparts and their international peers (Sabin)</li> <li>• Update the cMYP for the period 2017-2021, taking into account the country's transition status and its implications, as well as potential introduction of new vaccines during the next cMYP period (WHO)</li> </ul>
<b>Vaccine procurement</b>	<ul style="list-style-type: none"> <li>• Conduct a comprehensive review of current vaccine procurement practices to identify existing bottlenecks and inefficiencies and propose solutions (UNICEF TA)</li> </ul>

	<ul style="list-style-type: none"> <li>Continue building country's self-procurement capacities for vaccines purchased outside of UNICEF SD by improving knowledge on vaccine market dynamics, on evolution of vaccine prices and measures to increase procurement efficiency (WHO and UNICEF TA)</li> <li>Conduct procurement-related training workshops (UNICEF and WHO TA)</li> </ul>
<b>Evidence-based decision-making</b>	<ul style="list-style-type: none"> <li>Continue providing support to the NITAG (e.g. through disseminating guidance documents, providing trainings, facilitating participation in ETAGE, SAGE and other WHO meetings and visits to other NITAGs, organizing study tours, etc.) (WHO TA)</li> <li>Provide technical assistance to NITAG in collecting and evaluating quality of evidence to develop recommendations on introduction of HPV vaccine (WHO TA)</li> <li>Provide support in implementation of rotavirus surveillance in Georgia for 2016 (WHO TA)</li> <li>Conduct research into knowledge, attitudes and practices among public and health care workers, including on HPV vaccine (WHO TA)</li> </ul>
<b>Programme performance</b>	<ul style="list-style-type: none"> <li>Review and update immunization protocols and guidelines (WHO TA)</li> <li>Provide technical support in addressing vaccine hesitancy (WHO TA)</li> <li>Provide technical assistance with the tOPV – bOPV switch (WHO TA)</li> <li>Conduct trainings for medical workers in sub-regions on vaccine safety and contraindications; continue such trainings on a central level and through a cascade strategy (WHO TA)</li> <li>Conduct refresher trainings to medical staff on immunization (UNICEF/WHO)</li> <li>Provide Immunization in Practice training to district level trainers (WHO TA)</li> <li>Provide support to outreach immunization sessions in relevant regions</li> <li>Develop supervision tools, train and support district level supervisors;</li> </ul>
<b>Data quality</b>	<ul style="list-style-type: none"> <li>Conduct a data quality review (WHO TA)</li> <li>Support further roll-out, development of analytical functions and data visualization for immunization module, operationalization of electronic databases and registers and training of relevant staff on the use of such systems (WHO TA)</li> </ul>
<b>Communication &amp; social mobilization</b>	<ul style="list-style-type: none"> <li>Conduct communications review – WHO TA</li> <li>Develop a communication and advocacy strategy and detailed action plan (WHO/UNICEF)</li> <li>Conduct further in-country trainings to key staff (including spokespersons) on communications (WHO)</li> <li>Provide training to media staff (WHO TA)</li> <li>Support in developing and printing key communication materials (UNICEF)</li> <li>Conduct communication activities in communities (UNICEF)</li> <li>Facilitate participation of relevant staff in sub-regional workshop on social media (WHO TA)</li> <li>Tailor immunization practices for relevant groups and conduct communication activities to change behavior (WHO TA)</li> </ul>
<b>Vaccine management &amp; logistics</b>	<ul style="list-style-type: none"> <li>Considering substantial share of cold chain equipment reaching the end of its useful life, conduct inventory and develop a renewal plan (WHO TA)</li> <li>Develop supportive supervision guidance and data collection and analysis tools to facilitate systematic identification of issues and follow up on improvement (WHO TA);</li> <li>Conduct supportive supervision with special emphasis in low performing districts and facilities (WHO)</li> <li>Develop integrated national regulations on storage of vaccines and cold chain requiring pharmaceuticals that would be applicable to all players, including customs, wholesalers, public health and primary health care facilities (WHO TA);</li> <li>Establish a quality management system, including definition of roles and responsibilities and development of SOPs for each task to be performed at each level of the supply chain (WHO TA);</li> <li>Improve the use of computerized data management systems (i.e. vaccine stock management, cold chain inventory) at national and sub-national levels;</li> <li>Develop a national systematic training programme on immunization and vaccine management.</li> <li>Conduct temperature monitoring study during transportation between DPHC and health facilities, and within health facilities</li> </ul>
<b>Vaccine regulations &amp; AEFI surveillance system</b>	<ul style="list-style-type: none"> <li>Provide support with introducing expedited procedures for registration of prequalified vaccines (WHO TA)</li> <li>Conduct AEFI surveillance system review (WHO TA)</li> <li>Provide support with the revision of the legislative basis and guidelines for AEFI surveillance system;</li> <li>Conduct a causality assessment training (AEFI review committee, EPI, NRA);</li> <li>Assess AEFI and revised guidelines, and conduct a national training of trainers based on developed guidelines;</li> <li>Establish an AEFI electronic database to facilitate notification, access to and use of case based data;</li> <li>Train staff on market authorization and licensing and AEFI surveillance system (reporting, case investigation) (WHO)</li> </ul>



	<ul style="list-style-type: none"> <li>• Provide pharmacovigilance training (WHO)</li> <li>• Provide support with the implementation of the NRA Institutional Development Plan</li> </ul>
<b>New Vaccine Support</b>	<ul style="list-style-type: none"> <li>• Continue implementation of rotavirus sentinel surveillance and case control study to monitor rotavirus vaccine impact</li> <li>• Continue implementing invasive bacterial disease surveillance</li> <li>• Conduct a study to evaluate impact of PCV</li> <li>• Facilitate participation of relevant staff in sub-regional meetings on new vaccines introduction</li> </ul>
<b>Immunization advocacy</b>	<ul style="list-style-type: none"> <li>• Provide support with the Global immunization Week activities (UNICEF/WHO TA)</li> </ul>

## 5. ENDORSEMENT BY ICC, HSCC OR EQUIVALENT & ADDITIONAL COMMENTS

The Joint Appraisal and EPI Review findings have been presented to the Deputy Minister of Health and members of the ICC during the debrief session specifically organized for this purpose. The participants of the session reviewed the findings and endorsed them. The Deputy Minister of Health reconfirmed Georgia's commitment to speed up the endorsement and validation of the Graduation Action Plan and the signature of the Partnership Framework Agreement. Additional points, comments and observations shared during the debrief session were taken into consideration in the final version of Joint Appraisal report. Both the draft and final versions of the Joint Appraisal report (in English and Russian) have been shared with the mission members and organizations, MoH departments and individuals with which the JA team met during the appraisal.

Please find the full presentation in Annex F to this report.

6. ANNEXES

Annex A

KEY DATA

Georgia

Total population (2015)	3,999,420
Birth cohort (2015)	53,994
Surviving Infants (surviving to 1 year per year, 2015)	53,324
Infant mortality rate (deaths < 1 year per 1000 births, 2013)	12/1000
Child mortality rate (deaths < 5 years per 1000 births, 2013)	13/1000
World Bank Index, IDA (2012)	4.44
Gross Nation Income (per capita US\$, 2013)	3,560
Co-financing status (2015)	Graduating
No. of districts/territories (2014)	65



<b>Non-vaccine support</b>	<b>Vaccine support</b>
22%	78%
\$1,042,450	\$3,629,468

Total:  
\$4.7 Million

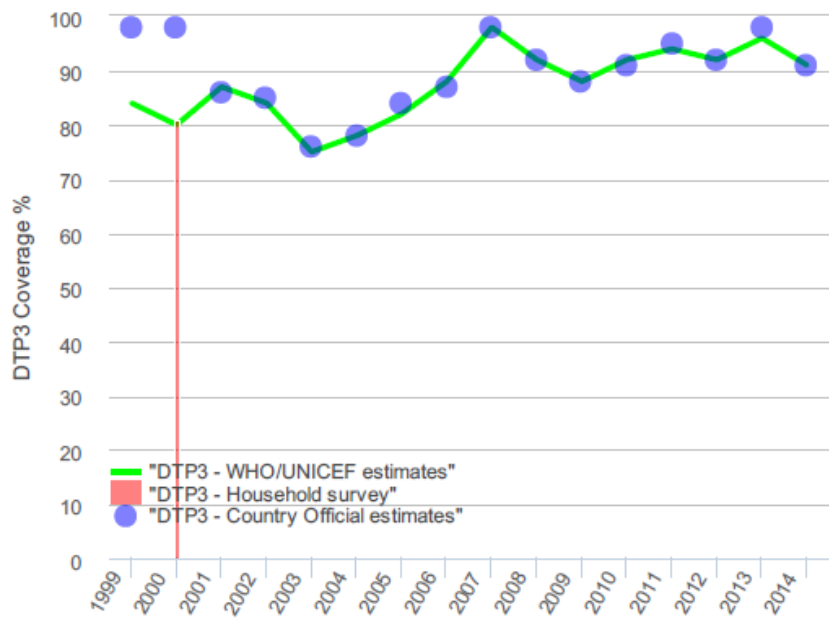
Gavi support for Georgia

Type of support	Approvals 2001-2020 (US\$) (31 Jul 2015)	Commitments 2001-2020 (US\$) (31 Jul 2015)	Disbursements 2000-2015 (US\$) (31 Jul 2015)	% Disbursed (31 Jul 2015)	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Civil Society Organisation support (CSO)			\$10,000	N/A															
Health system strengthening (HSS 1)	\$435,500	\$435,500	\$435,500	100%															
HepB mono (NVS)	\$167,917	\$167,917	\$167,917	100%															
Immunisation services support (ISS)	\$135,500	\$135,500	\$135,500	100%															
Injection safety support (INS)	\$61,451	\$61,451	\$61,451	100%															
Penta (NVS)	\$2,108,196	\$2,108,196	\$2,203,671	105%															
Pneumo (NVS)	\$931,900	\$1,313,900	\$800,136	86%															
Rotavirus (NVS)	\$454,571	\$454,571	\$457,746	101%															
Vaccine Introduction Grant (VIG)	\$400,000	\$400,000	\$400,000	100%															
<b>Total</b>	<b>\$4,695,034</b>	<b>\$5,077,034</b>	<b>\$4,671,921</b>																

Red line on table indicates duration of support based on commitments.  
 Commitments: Multi-year programme budgets endorsed in principle by the Gavi Board. These become financial commitments upon approval each year for the following calendar year.  
 Approvals: Total Approved for funding

## Georgia DTP3 / immunisation coverage

DTP3 - WHO/UNICEF estimates (2014)	
<i>Grade of confidence</i>	N/A
DTP3 - Official country estimates (2014)	91%
M:F sex ratio at birth (2015)	1.10
Household survey: DTP3 coverage for male (2000)	76.60%
Household survey: DTP3 coverage for female (2000)	83.80%
Household survey: Last DTP3 survey (2000)	81%
% districts achieving > 80% DTP3 coverage (2014)	94%
% districts achieving < 50% DTP3 coverage (2014)	0%
MCV WHO/UNICEF estimates (2014)	92%
Polio WHO/UNICEF estimates (2014)	91%



## Annex B

**Status of implementation of the key actions from the last joint appraisal and any additional High Level Review Panel (HLRP) recommendations**

Key actions from the last appraisal or additional HLRP recommendations	Current status of implementation
<p><b>Building capacity for communication and develop a comprehensive advance communication strategy for immunisation are needed as well as implementation of Rota PIE recommendations to improve the program management and delivery and gain efficiencies for implementation.</b></p>	<p><b>Communication Capacity will continue to be built through the Graduation Grants and Partnership Framework Engagement TA in 2015-2017. Implementation of Rota PIE recommendations will be verified and followed up on during PCV PIE, to be conducted before the end of 2015.</b></p>
<p><b>The country was visited in 2012 for a graduation assessment. A graduation plan was devised at the time with Alliance partners and agreed with the country. As per the GAVI Board decision the country will be re-visited and graduation assessment will look into program and financial issues further in order to develop plans and budget to support the transition. The visit is tentatively planned for October 2014.</b></p>	<p><b>Graduation Re-Assessment took place in October 2014. Graduation Action Plan has been validated by the country and Graduation Grants are currently being prepared.</b></p>

## Annex C

### Description of joint appraisal process

Two processes (the Joint Appraisal and Expanded Program on Immunization Review) were conducted jointly and simultaneously.

Joint Appraisal and EPI Review were conducted from 27 July 2015 to 5 August 2015 and were built upon information submitted in 2014 APR, details provided in the 2013 Internal Appraisal, 2013 post-introduction evaluation of rotavirus vaccine, October 2014 graduation assessment, and field visits in five regions of Georgia (Tbilisi city, Imereti, Kakheti, Ajara, Abkhazia), additionally covering programmatic and performance-related challenges. In this perspective, the overarching objective was to assess the conditions of continuous performance of the Georgian immunization program, which up to now has been both effective and efficient.

#### Main institutions and persons visited:

- **Ministry of Labor Health and Social Affairs of Georgia:** Deputy Minister of Labor, Health and Social Affairs, Legal and Financial Departments of MoLHSA.
- **NCDC:** NCDC General Director, Deputy General Director, EPI Manager, Head of Cold chain and logistic Division, Head of State Program Department, Division of Immunoprophylaxis, Lugar Center.
- **UNICEF Country Office**
- **WHO Country Office**

Discussions and technical meeting with people and organisations listed above took place during the combined Joint Appraisal and EPI review mission. The findings of these discussions, as well as the recommendations and proposed activities to be implemented through the Graduation Action Plan and Joint Appraisal technical assistance, have been presented to the MoH, ICC members, and WHO and UNICEF country representatives. The draft Joint Appraisal report has also been circulated to all relevant stakeholders, and feedback received was incorporated in the final version of the report.

- Annex D. Summary of Recommended Actions

Actions	Responsibility	Timeline	Potential financial resources needed and source(s) of funding
<b>Maintain immunization as a high-level political priority and secure sufficient financial resources for the NIP, notably through expanding resource mobilization efforts</b>			
Government of Georgia to maintain immunization as a priority from both the public health and financial points of view after the end of support from international donors	MoH	2016-2021	
Secure sufficient financial resources for the Immunization Program from the general budget and other sources, work on further advocacy and resource mobilization	MoH WHO TA	2016-2021	Graduation Grants
Update the cMYP for the period 2017-2021, taking into account the country's transition status and its implications, as well as potential introduction of new vaccines during the next cMYP period	MoH WHO TA	2016	PEF
Strengthen and operationalize the country's NITAG and differentiate it from the ICC, concentrating on the specific roles and mandates of each of these groups	WHO TA	2015-	Graduation Grants
Develop parliamentary network for sharing best practices in immunization financing and legislation and providing joint effort for improvements	MoH Sabin TA	2015-2016	Gavi Contract with Sabin
Engage national institutional counterparts (Parliament, MoH and MoF) with local NGOs and think tanks in joint advocacy activities for immunization financing; involve civil society in ICC activities	MoH Sabin TA	2015-2016	Gavi Contract with Sabin
<b>Improve quality and performance of immunization services at the primary health care centers, notably through strengthen primary health care system and exploring performance incentives for medical service providers</b>			
Conduct temperature monitoring study during transportation between DPHC and health facilities, and within health facilities	WHO TA	2016	Graduation Grants
Conduct PCV Post-Introduction Evaluation	MoH WHO TA	2015	2015 Business Plan
Write and implement SOPs at DPHC and primary health care facility levels	MoH WHO TA	2016	Graduation Grants
Review AEFI surveillance system sensitivity; train on AEFI detection and case definition	MoH WHO TA	2016	Graduation Grants
Scale up measles and rubella elimination efforts through high political commitment, developing national plan and implementing appropriate strategies	MoH	2016	
The Regulatory Authorities (NRA) to implement the Institutional Development Plan produced in 2014	NRA WHO TA	2015-2016	Graduation Grants
Continue efforts to implement polio "end game" strategies and maintain polio-free status	MoH WHO TA	2015-2016	
Strengthen VPD surveillance by reintroducing case based reporting of hepatitis B and implementing CRS surveillance; explore ways to improve specimen collection	MoH WHO TA	2015-	



Consider establishing syndromic surveillance for diseases with fever and skin rash, to improve measles and rubella case detection	MoH WHO TA	2015-	
Continue implementation of rotavirus surveillance in Georgia for 2016	WHO TA	2015-2017	WHO TA
<b>Further expand advocacy efforts and continue to educate medical workers on immunization safety and benefits</b>			
Explore various strategies to reduce false contraindications (scientific workshops, behaviour change models)	MoH WHO TA	2015-	Graduation Grants
Explore ways to increase immunization coverage and decrease drop-out rates, engaging MLHSA and SSA		2016-2017	Graduation Grants
Conduct research into knowledge, attitudes and practices among public and health care workers, including on HPV vaccine	WHO TA	2015-2016	Graduation Grants
Conduct the tOPV – bOPV switch	MoH WHO TA	2016	
Conduct trainings for medical workers in sub-regions on vaccine safety and contraindications; continue such trainings on a central level and through a cascade strategy	MoH WHO TA	2015-2017	Government, Graduation Grants
Conduct refresher trainings to medical staff on immunization	UNICEF/ WHO	2015-2017	Government, Graduation Grants
Provide Immunization in Practice training to district level trainers	WHO TA	2016-2017	Graduation Grants
Provide support to outreach immunization sessions in relevant regions	MoH	2015	
<b>Addressing challenges of lower coverage with routine vaccines in regions of Georgia with lower performance</b>			
Ensure roll-out and proper use of the immunization e-module by all health facilities as soon as possible. Ensure linkage of birth registration system with immunization module	MoH WHO TA	2015-2016	PEF
Strengthen skills and accountabilities of DPHCs on data analysis and program performance monitoring	MoH WHO/ UNICEF TA	2015-2016	Government
Develop supervision tools, train and support district level supervisors	MoH WHO TA	2015-2016	PEF
Maintain the extent and the quality of supportive supervision to ensure the full quality of the immunization program	MoH WHO TA	2015-2016	Government
Ensure adequate conditions for successful electronic immunization system use (availability of equipment, internet connection, etc)	MoH	2015-2016	Government
Finalize coverage survey with additional information on determinants of low coverage, analyse its findings and address identified issues	MoH CDC	2015-2016	Graduation Grant
<b>Develop comprehensive communication strategy and allocating sufficient resources for immunization campaigns, trainings and information materials</b>			
Establish a vaccine communication committee as a platform for partner involvement	MoH	2016	Government
Conduct further in-country trainings to key staff (including spokespersons) on communications and provide training to media staff	WHO TA	2016	PEF
Conduct communications review and develop a communication and advocacy strategy and detailed action plan	WHO UNICEF TA	2016	Graduation Grant
Tailor immunization practices for relevant groups and conduct communication activities to change behavior	WHO TA	2016	Graduation Grant
Facilitate participation of relevant staff in sub-regional workshop on social media (WHO TA)	MoH WHO TA	2016	PEF

Develop comprehensive communication strategies; allocate sufficient resources, training and information material	MoH	2015-2017	Government
Increase capacity in health communication in NCDC and DPHCs, with technical assistance	MoH	2015-2017	Government
Conduct communication activities in communities	UNICEF TA	2015-2017	PEF
<b>Finalize the roll-out and successful implementation of the electronic immunization register</b>			
Finalize operationalization and development of analytical functions of the electronic systems	WHO TA	2015-2016	PEF
Conduct a data quality review (WHO TA)	WHO TA	2016	PEF
Support further roll-out, development of analytical functions and data visualization for immunization module, operationalization of electronic databases and registers and training of relevant staff on the use of such systems (WHO TA)	MoH USAID TA	2015-2017	Government
<b>Further improving cold chain and vaccine management, notably with respect to avoidance of stock-outs, use of pre-qualified equipment, and wider use of computerized data management systems.</b>			
Conduct a comprehensive review of current vaccine procurement practices to identify existing bottlenecks and inefficiencies and propose solutions; consider receiving vaccines in a single shipment per year	MoH  UNICEF TA		PEF
GoG to continue allocating budget for cold chain in 2016 and 2017 to cover remaining need			Government
Increase collaboration and coordination with UNICEF SD to facilitate transactions, work with manufacturers to avoid delays, and receive information in advance in case of supply shortages	UNICEF TA		Government
Continue building country's self-procurement capacities for vaccines purchased outside of UNICEF SD by improving knowledge on vaccine market dynamics, on evolution of vaccine prices and measures to increase procurement efficiency	WHO and UNICEF TA		Graduation Grants
Assess cold chain needs and upgrade cold chain infrastructure	MoH WHO TA		Government

Annex E

Technical assistance for 2016-2017					
Programme component or strategy)	Activity (that requires TA)	Intended outcome/s	Provider (potential)	Modality	Source of funding
<b>1. Immunization financing &amp; resource mobilization</b>	1.1 Develop resource mobilization plan and advocacy materials for resource mobilization	Increased in-country capacity on immunization financing	WHO	In-country work with external TA	Graduation Grants
	1.2 Conduct resource mobilization training for relevant staff	Increased in-country capacity on immunization financing	WHO	Sub-regional workshop	2015 Business Plan
	1.3 Develop parliamentary network and engage parliamentarians in immunization advocacy, budget oversight and development of immunization-related legislation	Increased awareness and involvement of stakeholders	Sabin Institute	In-country TA	Gavi funding outside of Graduation or PEF (contract with Sabin)
	1.4 Engage national institutional counterparts (Parliament, MoH and MoF) with local NGOs and think tanks in joint advocacy activities for immunization financing (Sabin)	Increased awareness and involvement of stakeholders	Sabin Institute	In-country TA	Gavi funding outside of Graduation or PEF (contract with Sabin)
	1.5 Conduct peer exchanges and regional workshop on immunization-related legislation to facilitate the collaboration between national counterparts and their international peers	Improved immunization-related legislation	Sabin Institute	In-country TA	Gavi funding outside of Graduation or PEF (contract with Sabin)
	1.6 Update the cMYP for the period 2017-2021, taking into account the country's transition status and its implications, as well as potential introduction of new vaccines during the next cMYP period (WHO)	Improved planning and transparency of immunization financing for the next 5-year period	WHO	In-country work with external TA	PEF support
<b>2. Vaccine procurement</b>	2.1 Conduct a comprehensive review of vaccine procurement practices and assess existing legislative framework on vaccine procurement to identify existing bottlenecks and inefficiencies and propose solutions in development of diverse procurement mechanisms that will ensure sustainable vaccine availability	Efficient use of available resources and ensured timely access to quality-assured vaccines	UNICEF	In-country work with external TA	PEF
	2.2 Continue building country's self-procurement capacities for vaccines purchased outside of UNICEF Supply Division by improving knowledge on vaccine market dynamics, on evolution of vaccine prices and measures to increase procurement efficiency	Increased in-country capacity on procurement	WHO & UNICEF	In-country work with external TA	PEF
	2.3 Conduct procurement-related training workshops	Increased in-country capacity on procurement	WHO & UNICEF	In-country and external workshops	PEF
	2.4 Assess cold chain needs and upgrade cold chain infrastructure	Increased in-country cold-chain capacity	WHO	In-country TA	Government

<b>3. Evidence-based decision-making</b>	3.1 Continue providing support to the NITAG: <ul style="list-style-type: none"> <li>- Disseminate guidance documents</li> <li>- Provide trainings</li> <li>- Facilitating participation in ETAGE, SAGE and other WHO meetings</li> <li>- Facilitate visits to other NITAGs and organizing study</li> </ul>	Improved strategic guidance to the Programme	WHO	Sub-regional workshop, study tours, in-country TA	Graduation Grants
	3.2 Provide technical assistance to NITAG in collecting and evaluating quality of evidence to prepare topics for NITAG discussion, including recommendations for introduction of HPV vaccine (WHO TA)	Improved strategic guidance to the Programme	WHO	In-country TA	Graduation Grants
	3.3 Provide support in implementation of rotavirus surveillance in Georgia for 2016	Advocacy support for continuation of rotavirus vaccination; Increased coverage with rotavirus vaccine	WHO	In-country TA	Graduation Grant
	3.4 Train and equip relevant bodies (NITAG, NCDC) with skills and methods to assess cost-effectiveness	Improved strategic guidance to the Programme	WHO	In-country TA	PEF Channel
	3.5 Conduct research into knowledge, attitudes and practices among public and health care workers, including on HPV vaccine (WHO TA)	In-country data and evidence on effectiveness of new vaccines introduction	WHO & UNICEF	In-country TA	PEF Channel
<b>4. Programme performance</b>	4.1 Review and update relevant immunization protocols and guidelines	Improved quality of services	WHO	In-country TA, in-country training	
	4.2 Technical support in addressing vaccine hesitancy	Reduced vaccine hesitancy	WHO	In-country TA, in-country training	Graduation Grants
	4.3 Provide technical assistance with the tOPV – bOPV switch	Successful switch	WHO	In-country TA	PEF
	4.4 Conduct trainings for medical workers in sub-regions on vaccine safety and contraindications; continue such trainings on a central level and through a cascade strategy	Reduced vaccine hesitancy and higher coverage	WHO	In-country TA, in-country training	Graduation Grant + PEF
	4.5 Conduct refresher trainings to medical staff on immunization	Improved quality of services	WHO & UNICEF	In-country TA, in-country training	Graduation Grant
	4.6 Provide Mid-level Management training to rayon level immunization managers	Improved in-country capacity	WHO	In-country TA and training	Graduation Grant
	4.7 Provide Immunization in Practice training to district level trainers	Improved in-country capacity	WHO	In-country TA and training	Graduation Grant
	4.8 Workshop on tailoring the immunization programme, identifying strategies to reach the unreached	Improved quality of services, Reduced vaccine hesitancy and higher coverage	WHO	Sub-Regional Workshop	Graduation Grant
	4.9 Develop supervision tools, train and support district level supervisors	Improved quality of services	WHO	In-country TA	PEF
	4.10 Provide support to outreach immunization sessions in relevant regions	Improved quality of services	WHO/ UNICEF	In-country TA	PEF

<b>5. Data quality</b>	5.1 Conduct a data quality review	Improved data support to immunization for action	WHO	In-country TA	PEF
	5.2 Support further roll-out, development of analytical functions and data visualization for immunization module, operationalization of electronic databases and registers and training of relevant staff on the use of such systems	Improved data support to immunization for action	WHO	In-country TA	Graduation Grant
<b>6. Communication &amp; social mobilization</b>	6.1 Conduct communications review	Assessment of communication needs and capacities	WHO	In-country work with external TA	Graduation Grant
	6.2 Develop a communication and advocacy strategy and detailed action plan	Intensified and targeted communication activities	WHO/ UNICEF	In-country TA	Graduation Grant
	6.3 Conduct further (in-country) trainings to key staff (including spokespersons) on communications	Increased in-country communication capacity	UNICEF	In-country TA	PEF
	6.4 Provide training to media staff	Reduced negative media influence	UNICEF	In-country TA	Graduation Grants
	6.5 Supporting the NIP in developing and printing key communication materials	Continued implementation of key communication activities	UNICEF	In-country TA	PEF
	6.6 Participation in sub-regional workshop on social media for relevant staff	Increased in-country communication capacity	WHO	Sub-regional workshop	PEF
	6.7 Support the NIP (financially) in conducting communication activities	Intensified and targeted communication activities	WHO	In-country TA	PEF
	6.8 Conduct communication activities in communities	Intensified and targeted communication activities	UNICEF	In-country TA	PEF
	6.9 Provide support with the Global immunization Week activities	Intensified and targeted communication activities	WHO/ UNICEF	In-country TA	PEF
	6.10 Tailor immunization practices for relevant groups and conduct communication activities to change behavior	Intensified and targeted communication activities	WHO	In-country work with external TA	Graduation Grants
<b>7. Vaccine management &amp; logistics</b>	7.1 Conduct cold chain inventory and develop a renewal plan for equipment reaching the end of its life or requiring repairs	Improved cold chain	WHO	In-country TA	Graduation Grants
	7.2 Develop supportive supervision guidance and data collection and analysis tools to facilitate systematic identification of issues and follow up on improvement	Improved vaccine management	WHO	In-country TA	PEF
	7.3 Conduct supportive supervision with special emphasis in low performing districts and facilities	Improved vaccine management	WHO	In-country TA	PEF
	7.4 Develop integrated national regulations on storage of vaccines and cold chain requiring pharmaceuticals that would be applicable to all players, including customs, wholesalers, public health and primary health care facilities	Improved cold chain	WHO	In-country TA	PEF

	7.5 Establish a quality management system, including definition of roles and responsibilities and development of SOPs for each task to be performed at each level of the supply chain	Improved vaccine management	WHO	In-country TA	PEF
	7.6 Improve the use of computerized data management systems (i.e. vaccine stock management, cold chain inventory) at national and sub-national levels;	Improved vaccine management	WHO	In-country TA	PEF
	7.7 Conduct temperature monitoring study during transportation between DPHC and health facilities, and within health facilities	Improved vaccine management	WHO	In-country TA	Graduation Grant
	7.8 Develop a national systematic training programme on immunization and vaccine management.	Improved vaccine management	WHO	In-country TA	PEF
<b>8. Vaccine regulations &amp; AEFI surveillance system</b>	8.1 Assess AEFI and revise guidelines, and conduct a national training of trainers based on developed guidelines	Improved safety of immunizations	WHO	In-country TA	Graduation Grant
	8.2 Provide support with introducing expedited procedures for registration of prequalified vaccines	Improved safety of immunizations	WHO	In-country TA	PEF
	8.3 Conduct AEFI surveillance system review	Improved safety of immunizations	WHO	In-country TA	PEF
	8.4 Conduct causality assessment training (AEFI review committee, EPI, NRA)	Improved safety of immunizations	WHO	In-country TA	Graduation Grants
	8.5 Provide support with the revision of the legislative basis and guidelines for AEFI surveillance system	Improved safety of immunizations	MoH	In-country TA	Graduation Grants
	8.6 Establish an AEFI electronic database to facilitate notification, access to and use of case based data;	Improved safety of immunizations	WHO	In-country TA	PEF
	8.7 Provide support with the implementation of the NRA Institutional Development Plan	Stronger and higher performing NRA	WHO	In-country TA	Graduation Grant
	8.8 Train staff on market authorization and licensing and AEFI surveillance system (reporting, case investigation)	Improved safety of immunizations	WHO	In-country TA	PEF
<b>9. New Vaccine Support</b>	9.1 Continue implementation of rotavirus sentinel surveillance and case control study to monitor rotavirus vaccine impact	Advocacy support for continuation of rotavirus vaccination	WHO	In-country TA	Graduation Grant
	9.2 Continue implementing invasive bacterial disease surveillance	Advocacy support for continuation of rotavirus and PCV vaccinations	WHO	In-country TA	Graduation Grant
	9.3 Conduct a study to evaluate impact of PCV	Advocacy support for continuation of rotavirus and PCV vaccinations	WHO	In-country work with external TA	PEF support
	9.4 Facilitate participation of relevant staff in sub-regional meetings on new vaccines introduction	Increased in-country capacity for new vaccines introductions	WHO	Sub-regional workshops	PEF support



## Annex F. Final Debrief Presentation

Immunization/VPD surveillance review in Georgia  
27<sup>th</sup> July to 5<sup>th</sup> August 2015

Findings and recommendations

Planning & management,  
including financing sustainability &  
advocacy for the program

### Major issues to be addressed

- Lack of systemic approaches and incentives for increasing/maintaining immunization performance among service providers
- Shortages of several vaccines due to time delay in supply by UNICEF, problem of global market deficit and delayed transactions
- Lack of regulation and enforcement by SSA/Municipality/DPHC to ensure service quality in health facilities
- Problem of optimization of human resources at public health center and primary health care levels
- Quality of infrastructure and of working conditions low in most of public health centres (DPHC) and some of primary health care facilities

### Protocol

#### Objective

Identify system strengths and weaknesses and draft recommendations, keeping in mind global and regional disease control targets

#### Specific objectives

1. Planning & management, including financing
2. Service delivery
3. Immunization quality & safety
4. Immunization coverage & monitoring
5. VDP surveillance & diseases control

#### Areas visited

- Central level + 5 regions/Tbilisi city
  - Tbilisi city, Imereti, Kakheti, Ajara, Abkhazia
  - 2 districts per region & 2-3 health facilities per district

### Major achievements

- Government financing of immunization program sustained and increased, reflected in the budget for the coming year (introduction of hexavalent)
- NCDC management and supervision of the immunization program, including competent and experienced staff: a strong part of the system
- Advisory bodies and committees exist and most of them function
- Core official documents on immunization available, and currently being revised
- Good settings in urban polyclinics; health staff dedicated
- Regular training on various technical areas

### Recommendations (topic 1)

- GoG to maintain its continuous effort for financial sustainability
- Ways to “regulate” the quality and performance of services of DPHC and health facilities to be envisaged (e.g. incentive/punitive)
- UNICEF SD to be advocated to facilitate transactions, work with manufacturers to avoid delays, and to inform government in advance in case of supply shortages
- Receiving vaccines in a single shipment per year to be considered
- NCDC’s technical and financial strong capacity to manage and supervise the program to be fully maintained

## Major achievements

Service delivery, including immunization schedules, strategies, new vaccine introduction, communication & social mobilization

- National immunization schedule followed by service providers, and in line with WHO recommendations
- Immunization practices and vaccines handling observed during the review: in general good
- Rotavirus vaccine and PCV implementation proceeding fairly well
- Around 95% of all vaccinations are provided by the state program, share of commercial vaccines minimal
- Improved knowledge and awareness of parents on immunization in recent years
- Health Promotion team at national level with increased capacity (human and financial resources)

## Major issues to be addressed

- False contraindications still widespread, including temporary ones, inducing low coverage and drop-out
- Active follow up of children: a challenge for health staff (cost, time, motivation) for urban areas
- Larger health facilities with inpatient department less interested in implementing immunization
- Increasing vaccine hesitancy among parents in large cities
- Lack of trained/skilled professionals for health promotion (at all levels)

## Recommendations (topic 2)

- Explore various strategies to reduce false contraindications (scientific workshops, behavior change models)
- Explore intervention/recommendation by MLHSA for school/kindergarten entry requirements (immunization/health certificate)
- Develop comprehensive communication strategies; allocate sufficient resource, training and information material
- Increase capacity in health communication in NCDC and DPHCs, with technical assistance

Immunization quality & safety, including AEFI surveillance & NRA

## Major achievements

- Central level:
  - Existing good equipment for cold chain, temperature monitoring, transportation; cold storage capacity adequate
  - EVM (2014) recommendations and SOPs implemented for a good part; national vaccine store with high quality standard
- Country level:
  - Vaccine storage and distribution system well structured and fairly well functioning
  - Cold chain inventory assessment conducted (2013)
- New equipment provided (central, district) from GoG budget covering 1/3 of country need
- AEFI surveillance system in place, guidelines currently renewed
- NRA: Institutional development plan exists

### Major issues to be addressed

- Lack of SOPs implemented at DPHC and health facility levels
- Primary health care facilities mostly use domestic refrigerators, WHO standards cold chain equipment procured by NCDC can not be given to health facilities
- Weaknesses in cold chain knowledge and practices in some city maternity and polyclinics
- Sensitivity of the AEFI system not really known
- Information recorded in the logbooks not always complete; may indicate staff overload and lack of time

### Immunization coverage & monitoring, including program performance

### Major issues to be addressed

- Still too many differences not elucidated with target population figures
- Insufficient program performance monitoring by DPHC and primary health care facilities; limited data analysis
- Immunization coverage are lower than the Regional target of 95%
- High drop-out rates (penta 1-3, penta-MMR1), rotavirus vaccine coverage lower than penta 1 and 2
- Some difficulties to supervise health facilities

### Recommendations (topic 3)

- GoG to continue allocating budget for cold chain in 2016 and 2017 to cover remaining need
- Write and implement SOPs at DPHC and health facility levels
- Conduct temperature monitoring study during transportation between DPHC and health facilities, and within health facilities
- Review AEFI surveillance system sensitivity; train on AEFI detection and case definition
- The NRA to implement the Institutional Development Plan produced in 2014

### Major achievements

- Overall good immunization coverage system; data generally processed timely and complete
- New immunization e-module introduction improving child registry, with ID number. Planned introduction of e-birth registration
- Regular supervisory activities by NCDC in DPHC allowing checking the best practices and corrective action
- No real financial problem to implement supervisory activities

### Recommendations (topic 4)

- Ensure roll-out and proper use of the immunization e-module by all health facilities as soon as possible. Ensure linkage of birth registration system with immunization module
- Strengthen skills and accountabilities of DPHCs on data analysis and program performance monitoring
- Explore ways to increase immunization coverage and decrease drop-out rates, engaging MLHSA & SSA
- Maintain the extent and the quality of supportive supervision to ensure the full quality of the immunization program

## Major achievements

### VDP surveillance & diseases control (polio, measles/rubella, hepatitis B)

- VPD surveillance well established and functional
- Availability of EIDSS - online system of case based detection/notification/reporting/investigation/analysis
- Data detection and reporting in general satisfactory; timeliness/completeness satisfactory; data analysis well done at national and district levels (including outbreak analysis)
- Availability of modern up-to-date laboratories at Lugar Center; WHO-accredited national laboratories for polio, measles, and rubella
- Plans to further strengthen laboratory component, particularly using molecular-based methods
- Continued collaboration and support from partners (CDC, DTRA, WHO, etc.)

## Major issues to be addressed

- Limited laboratory confirmation of VPD cases
- Challenge with specimen collecting (e.g. blood sample)
- Outdated surveillance guidelines for measles, rubella, and CRS
- Very weak CRS surveillance
- Threat to achieving measles and rubella elimination goal

## Recommendations (topic 5)

- Scale up measles and rubella elimination efforts through high political commitment, developing national plan and implementing appropriate strategies
- Continue efforts to implement polio “end game” strategies and maintain polio-free status
- Strengthen VPD surveillance by reintroducing case based reporting of hepatitis B and implementing CRS surveillance; explore ways to improve specimen collection
- Consider establishing syndromic surveillance for diseases with fever and skin rash, to improve measles and rubella case detection

## Abkhazia specifics

### Key strengths or best practices

- Good data collection and monitoring system
- Dedicated staff actively involved in advocacy and follow-up with parents
- Functioning vaccine supply and storage system

### Key issues and challenges

- Weak primary health care system
- Low coverage for all antigens for children < 1 y. and high drop-out rates
- Major communication challenges

### Key recommendations

- High level advocacy required to ensure immunization is a real priority
- Continue investing in strengthening immunization efforts
- Strengthen advocacy and communication efforts among parents, medical staff and teachers
- Invest in/establish VPD surveillance

**ANNEX G:  
UNICEF Proposal**

**Immunization Support to Abkhazia 2016-17**

Prepared by UNICEF Georgia  
September 2015



## Immunization Support to Abkhazia 2016-17

### *Supplement to Georgia Graduation Action Plan for 2015-17*

In Abkhazia, the immunization situation for children remains a challenging issue. Since the August 2008 war and Russia's recognition of the regions of Abkhazia as an independent state, access to the territory has become more limited, especially for Georgian authorities. Since the end of the Georgian-Abkhaz conflict 1992-93, UNICEF is the only international organization working in Abkhazia in the field of immunization. While the situation of children in Abkhazia remains difficult, it is not a humanitarian emergency anymore and UNICEF is therefore moving towards a more development-oriented approach, expanding its engagement in the area of Maternal Child Health and beyond.

Despite of the major progress on immunization in Abkhazia since 2010 and UNICEF's continued support, the immunization programme to date cannot be self-sustained and fully covered by the capacities of de facto authorities and has very low immunization coverage rates compared to Georgia Proper, other South Caucasus countries and Russia. The immunization coverage for pentavalent vaccine coverage (third dose) is 37.0%, measles-containing vaccine coverage (first dose) is 59.3% and poliovaccine coverage (OPV, third dose) is 54.2%. The school immunization programme in Abkhazia shows higher immunization rates with coverage of viral hepatitis B (third dose), poliovaccine (third dose) and MMR (second dose) reaching between 70-80% among teenagers. These observations were confirmed by the recent Joint National-International Review of Immunization and VPD Surveillance for Georgia, including Abkhazia, conducted in July-August 2015.

Many challenges of the immunization programme in Abkhazia are linked to the political situation around the protracted Georgian-Abkhaz conflict and the poor performance of healthcare in Abkhazia in general. Some of the challenges were successfully addressed by UNICEF together with the local partners, including the progress in regular vaccine supply, basic immunization planning and vaccine management, improved data monitoring and analysis through the establishment of the electronic immunization registry, cold chain and immunization equipment supply and installment to strengthen cold chain capacity, reliability and quality, several rounds of medical staff trainings on different aspects of the immunization programme, such as WHO modules "Immunization in Practice" and "Immunization for Mid-Level Managers", communication and advocacy to support immunization, cold chain management, immunization data management, etc., introduction of new vaccines, adaptation of the new immunization schedule in line with WHO recommendations and immunization promotion and communication initiatives.

There is a number of remaining challenges in Abkhaz healthcare, which will require major changes in the health system and its governance, such as the lack of qualified paediatricians, nurses, and other relevant health staff, a weak primary healthcare system as well as lack of modern health-care legislation (as very limited immunization-specific legislation has been adopted in Abkhazia since 1990s, regulatory documents used are those from Soviet times or Russian ones without systematic application).

Furthermore, Abkhazia region will need to address high immunization drop-out rates for pre-school children, existence of false contraindications (which are neither justified by evidence-based medicine, nor by the health status of the children to be immunized) and delayed immunization, major communication challenges and the lack of consistent advocacy for immunization, insufficient engagement and commitment of higher de factor authorities to immunization and inequities in immunization coverage between rural and urban populations.



Continuous and sustainable support to de facto authorities will be required by international actors in order to tackle these remaining challenges and improve immunization programme performance rates in Abkhazia region comparable to the rest of Georgia and other neighbouring states. UNICEF continues its efforts to support vaccination on the ground through its own resources and donor's support, and is currently the only and best positioned qualified international actor for immunization in Abkhazia with established trust with the *de facto* authorities and stable access to the whole territory of Abkhazia. To date, UNICEF has resources to cover staff costs and some immunization programme needs until the end of 2016. However, a significant funding gap for the immunization programme for Abkhazia remains to supplement the Georgian Graduation Action Plan during 2017. The current Graduation Action Plan for Georgia does not cover the needs of Abkhazia and further funding for UNICEF will be required to ensure international support to immunization for children in Abkhazia. Hence, UNICEF under consultation with GAVI, developed the enclosed supplement to the Georgia Graduation Action Plan for 2015-17 to ensure continued immunization support for children Abkhazia.

Technical assistance requested for 2016 – 2017 in Abkhazia							
Programme component (or strategy)	Activity (that requires TA)	Intended outcome/s	Provider (potential)	Modality	Year of implementation	Estimated budget (USD)	Source of funding
Immunization programme strengthening	Technical support to immunization to the local staff	Properly functioning and strengthened immunization programme,	UNICEF	Regular technical support to immunization programme in Abkhazia through funding the P3 position of the international Health & Nutrition Officer	2016	191,000	UNICEF
Immunization data management and analysis	Technical support and minor investments in the immunization database	Good quality and timely immunization data available	UNICEF	Routine technical support to immunization database ensured, minor equipment procured	2016	15,000	UNICEF
Immunization advocacy	Participation on the Global immunization Week	Better knowledge and awareness on immunization among general public and target groups	UNICEF, local partners in Abkhazia	Abkhazia took part in the Global Immunization Week	2016	5,000	UNICEF
Immunization advocacy	Immunization support community events	Better knowledge and awareness on immunization among general public and target groups	UNICEF, local partners in Abkhazia	Up to 10 community events conducted in different locations all around Abkhazia	2016	13,000	UNICEF
Address vaccine hesitancy and resistance	Train health care workers on real and false contraindications for immunization	Better knowledge on real and false contraindications for immunization among health care workers	UNICEF	Training with external expert as part of IMCI training, cascade training	2016	40,000	UNICEF
Address vaccine hesitancy and resistance	Development and printing of the communication materials for immunization	Better knowledge and awareness on immunization among general public and target groups	UNICEF, local partners in Abkhazia	Production and distribution of communication materials in 2016	2016	10,000	UNICEF
Strengthen communications and advocacy through strategic planning and implementation	Contract with the local communication specialist	Continuous support to immunization promotion and communication to the local staff	UNICEF in coordination with the local health care workers	Routine technical support to immunization promotion and communication to the local immunization programme	2016	20,000	UNICEF
Strengthening capacity of the local staff	Refresher training on immunization	Improved knowledge and skills of the local staff	UNICEF	Refresher training on immunization	2016	5,000	UNICEF
<b>TOTAL UNICEF support</b>						<b>299,000</b>	
Supporting new vaccine introduction and	Participate to annual regional meetings on new	Number of immunization meetings	UNICEF in coordination with	Participation in the meetings	2016-17	10,000	GAVI PEF

<b>strengthening implementation of immunization programme</b>	vaccine introduction	attended by the staff from Abkhazia, number of attendees from Abkhazia	NCDC and meeting organizers				
<b>Strengthen communications and advocacy through strategic planning and implementation</b>	Contract with the local communication specialist	Continuous support to immunization promotion and communication to the local staff	UNICEF in coordination with the local health care workers	Routine technical support to immunization promotion and communication to the local immunization programme	2016	20,000	GAVI PEF
<b>Address vaccine hesitancy and resistance</b>	Conduct research into knowledge, attitudes & practices among public and health care workers, including HPV vaccine	Report, guidance for planning and action	UNICEF in coordination with the local health care workers	Planning and conducting research	2016-2017	15,000	GAVI PEF
<b>Address vaccine hesitancy and resistance</b>	Train health care workers to tackle with vaccine hesitancy and resistance	Better knowledge & communication skills among health care workers to deal with vaccine hesitancy & resistance	UNICEF	Training with external expert	2017	20,000	GAVI PEF
<b>Address vaccine hesitancy and resistance</b>	Development and printing of the communication materials for immunization	Better knowledge & awareness on immunization among general public and target groups	UNICEF, local partners in Abkhazia	Production and distribution of communication materials in 2017	2017	10,000	GAVI PEF
<b>Immunization advocacy</b>	Immunization support community events	Better knowledge & awareness on immunization among general public & target groups	UNICEF, local partners in Abkhazia	Up to 10 community events conducted in different locations all around Abkhazia	2017	15,000	GAVI PEF
<b>Immunization advocacy</b>	Participation on the Global immunization Week	Better knowledge & awareness on immunization among general public and target groups	UNICEF, local partners in Abkhazia	Support to Global Immunization Week in Abkhazia	2017	10,000	GAVI PEF
<b>Immunization data management and analysis</b>	Technical support and minor investments in the immunization database	Good quality & timely immunization data available	UNICEF	Routine technical support to immunization database ensured, minor equipment procured	2017	15,000	GAVI PEF
<b>Access to immunization and</b>	Support to outreach sessions to the rural and remote	Better access to immunization and higher	UNICEF, local partners	Support to outreach immunization sessions ensured, at least 50 sessions conducted	2016-17	50,000	GAVI PEF

<b>immunization coverage</b>	settlements all around Abkhazia	immunization coverage ensured					
<b>Immunization programme strengthening</b>	Technical support to immunization to the local staff	Properly functioning and strengthened immunization programme,	UNICEF	Regular technical support to immunization programme in Abkhazia through funding the P3 position of the international Health & Nutrition Officer	2017	199,000	GAVI PEF
<b>Institutionalize best vaccine management practices</b>	Develop supervision tools, train and support district level supervisors	Establish regular supportive supervision for immunization	UNICEF, local partners	Tool development, training and support	2016-17	5,000	GAVI PEF
<b>Systematic documentation and review of cold chain performance</b>	Participation in a cold-chain temperature monitoring study in accordance with WHO guidelines	Improved immunization cold chain	UNICEF, local partners	Participation in the study	2016	2,000	GAVI PEF
<b>Systematic documentation &amp; review of cold chain performance</b>	Participation in temperature mapping study of cold rooms	Improved immunization cold chain	UNICEF, local partners	Participation in the study	2016	2,000	GAVI PEF
<b>Systematic documentation &amp; review of cold chain performance</b>	Participation in EVSM assessment	Improved EVSM in Abkhazia	UNICEF, local partners	Participation in the assessment	2017	2,000	GAVI PEF
<b>Strengthening capacity of the local staff</b>	Refresher training on immunization	Improved knowledge and skills of the local staff	UNICEF	Refresher training on immunization	2016	10,000	GAVI PEF
<b>Cold Chain Equipment needs</b>	Support of cold chain equipment inventory and additional supply of cold chain equipment	Properly functioning immunization cold chain	UNICEF, local staff	Cold chain inventory and procurement of cold chain equipment	2016-17	20,000	GAVI PEF
<b>TOTAL requested GAVI PEF support</b>						<b>405,000</b>	